The Grades 3, 6 and 9 Provincial Report, 2004–2005: English-Language Schools

THE RESULTS OF THE GRADE 3 AND GRADE 6 ASSESSMENTS OF READING, WRITING AND MATHEMATICS AND THE GRADE 9 ASSESSMENT OF MATHEMATICS

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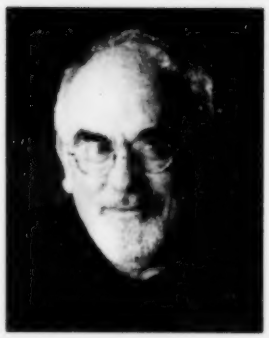


Charles E. Pascal
Chair, Board of Directors

I am pleased to report that student learning continues to improve in the "springboard for success" subjects of reading, writing and math, in the milestone years of Grades 3 and 6. The 2005 results of the province-wide testing carried out by the Education Quality and Accountability Office (EQAO) in elementary schools continue the upward trend that began several years ago in these subjects and grades. Ontario students are acquiring a solid foundation upon which to build a lifetime of learning.

While, at the secondary level, the results in Grade 9 mathematics have not changed from last year, they still represent a consolidation of the improvement that has taken place since the tests were first administered in 2000–2001.

This year's scores are certainly good news. But it's important that we understand exactly what they mean and what they empower us to do. Two questions are critical: Why do we test? and, What do the results teach us about how we can improve student learning?

At its core, provincial testing is about feedback. Feedback is *the* critical part of the learning process.The goal of province-wide testing is to provide feedback on the level of learning that students have achieved in core subjects. This supplements the helpful feedback students regularly receive from their teachers. The results inspire many school boards, individual schools and teachers to continue to find innovative ways of supporting student success.

The goal of all this feedback is to create a culture of learning, continuous innovation and improvement. It is about assessment *for* learning, not just assessment *of* learning. The test scores are not the end result but just one part of an ongoing cycle of learning.

As in previous years, EQAO has used the results to identify and spotlight individual schools that have significantly improved their scores. This report showcases a number of great examples. We believe that educators sharing their success stories is a key to continuous improvement. We are pleased to provide schools and school boards with samples of strategies that have been proven to yield positive results.

The steady improvement in student performance should be acknowledged and celebrated. It is a credit to Ontario students, teachers, principals, school boards, parents and all others involved in the education system. But we must also take this success in context. We are still a way from where we want to be. Too many Ontario students are still not mastering the foundational skills that will set them up for future successes in school and beyond. We all have a lot of work to do. EQAO results help pinpoint areas needing more attention and enable all education partners to make better-informed decisions.

Like all of the many partners involved in helping our students reach their potential, EQAO is itself always learning. We continue to transform our learning into improvements. In 2004–2005, for example, the tests were given later in the year to elementary students so that teachers could cover more of the curriculum before they were administered. In the year ahead, we will again search for new ways to design better tests, improve the way they are administered, find better and more useful ways of reporting the results to schools and teachers, and stay at the leading edge of providing feedback that matters.

Charles E. Pascal
Chair, Board of Directors

Message from the CEO

Marguerite Jackson
Chief Executive Officer

EQAO is pleased to present the results of the 2004–2005 Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics and the Grade 9 Assessment of Mathematics. These assessments were conducted in Ontario schools during 2005. These assessments, which are developed by teachers, are based on *The Ontario Curriculum* and measure student achievement relative to the Ontario standard, Level 3.

The results demonstrate the effects of the dedicated and focused efforts of school and board staffs across Ontario as they continue to make a difference for students. Students have made gains in both Grades 3 and 6 and have held their achievement levels in Grade 9.

All of us at EQAO strive to support educators, parents and students by providing accurate and reliable data that will help improve student achievement. These results become another key piece of information used within the context of the efforts of students and teachers throughout the year.

Each school success story in this report represents countless stories of schools in all areas of our province. The success stories provide meaning to the many initiatives of school learning communities as they work on behalf of their students.

Our School Support and Outreach Team met with hundreds of educators across Ontario during the last school year. Based on the input the team received from teachers and administrators, we have expanded the team's service to the field. Their fall tour begins this October as they hold regional workshops in all areas of the province on the topic of Using EQAO Data to Inform Professional Practice.

EQAO will continue to work with all boards toward the goal of continuous school improvement. Our commitment is to you and to the success of our students. Thank you for your efforts in helping achieve this goal. I invite you to use our Web site, www.eqao.com, for further information, and I look forward to hearing from many of you throughout the course of this year.

Sincerely,

Marguerite Jackson
Chief Executive Officer

Contents

Grades 3, 6 and 9 Results at a Glance 1

Grade 3 2

Grade 6 3

Grade 9 Academic Mathematics 4

Grade 9 Applied Mathematics 5

Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics 6

Trends: Grade 3 7

Trends: Grade 6 14

Summary of Findings: Grades 3 and 6 21

Strategies for Educators: Grades 3 and 6 22

School Success Stories: Grades 3 and 6 25

The EQAO Assessment Process: Grades 3 and 6 32

Grade 9 Assessment of Mathematics 34

Trends: Grade 9 Academic Mathematics 35

Trends: Grade 9 Applied Mathematics 40

Summary of Findings: Grade 9 45

Strategies for Educators: Grade 9 46

School Success Stories: Grade 9 48

The EQAO Assessment Process: Grade 9 52

Suggested Resources: Grades 3, 6 and 9 54

Explanation of Terms 55

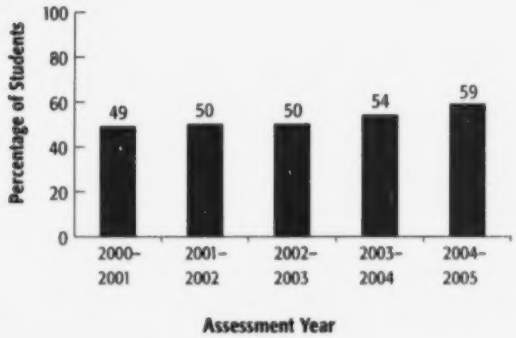
Grades 3, 6 and 9 Results at a Glance

Grade 3

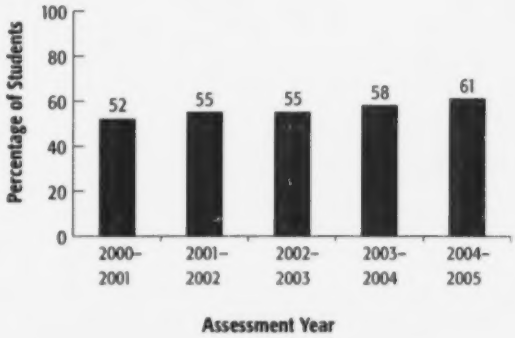
Comparison of Results over Time (percentage of all students at or above the provincial standard)

	Reading	Writing	Mathematics
2000–2001 (# = 138 422)	49%	52%	61%
2001–2002 (# = 139 727)	50%	55%	58%
2002–2003 (# = 140 860)	50%	55%	57%
2003–2004 (# = 141 245)	54%	58%	64%
2004–2005 (# = 135 740)	59%	61%	66%

Reading



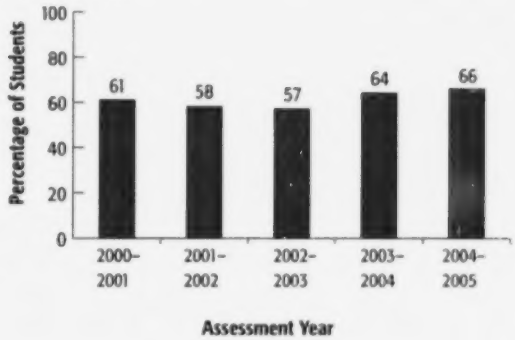
Writing



Observations

- In 2004–2005, Grade 3 students' achievement continued to improve. 59% performed at or above Level 3, the provincial standard, in reading; 61%, in writing; and 66%, in mathematics: increases of 5%, 3% and 2% respectively over 2003–2004.
- Performance in reading has improved over the past four years, with the percentage of students at or above the provincial standard increasing from 49% in 2000–2001 to 59% in 2004–2005.
- Performance in writing has improved over the past four years, with the percentage of students at or above the provincial standard increasing from 52% in 2000–2001 to 61% in 2004–2005.

Mathematics



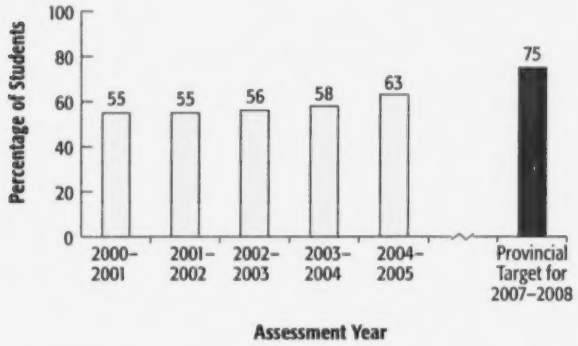
- Two-thirds of students are now performing at or above the provincial standard in mathematics, an improvement of 9% over achievement in 2002–2003.

Grade 6

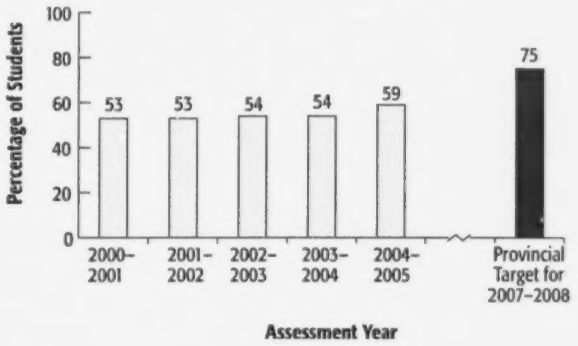
Comparison of Results over Time (percentage of all students at or above the provincial standard)

	Reading	Writing	Mathematics
2000–2001 (# = 138 191)	55%	53%	54%
2001–2002 (# = 145 351)	55%	53%	54%
2002–2003 (# = 144 676)	56%	54%	53%
2003–2004 (# = 146 169)	58%	54%	57%
2004–2005 (# = 143 421)	63%	59%	60%

Reading



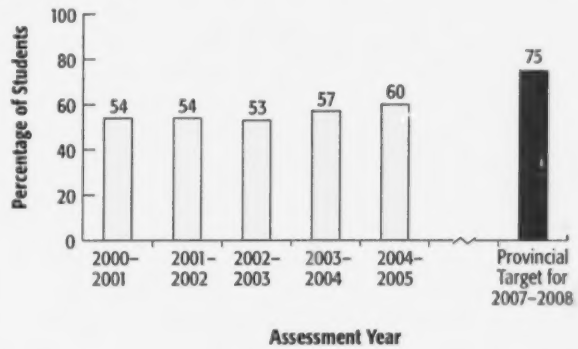
Writing



Observations

- In 2004–2005, Grade 6 students' achievement continued to improve. 63% performed at or above Level 3, the provincial standard, in reading; 59%, in writing; and 60%, in mathematics: increases of 5%, 5% and 3% respectively over 2003–2004.
- Performance in reading has steadily improved over the past three years, with the percentage of students at or above the provincial standard increasing from 55% in 2001–2002 to 63% in 2004–2005.
- Performance in writing has improved over the past three years, with the percentage of students at or above the provincial standard increasing from 53% in 2001–2002 to 59% in 2004–2005.

Mathematics



- 60% of students are now performing at or above the provincial standard in mathematics, an improvement of 7% over achievement in 2002–2003.

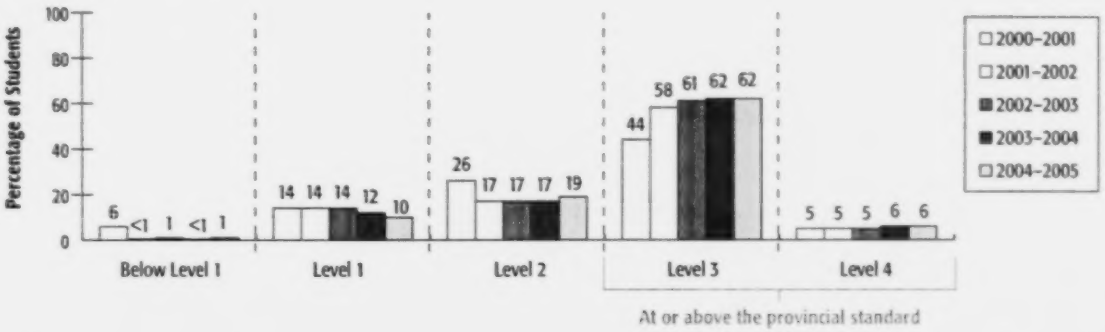
Grade 9 Academic Mathematics

Comparison of Results over Time

		2000–2001 # = 95 312	2001–2002 # = 99 094	2002–2003 # = 100 717	2003–2004 # = 102 923	2004–2005 # = 104 100
Percentage of Students	Level 4	5%	5%	5%	6%	6%
	Level 3	44%	58%	61%	62%	62%
	Level 2	26%	17%	17%	17%	19%
	Level 1	14%	14%	14%	12%	10%
	Below Level 1	6%	<1%	1%	<1%	1%
	NEIS	3%	3%	<1%	1%	N/A*
	No Data	1%	1%	2%	1%	1%
	Exempt	1%	<1%	<1%	<1%	<1%
	At or Above the Provincial Standard†	49%	64%	66%	68%	68%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- In 2004–2005, just over two-thirds (68%) of Grade 9 students taking academic mathematics demonstrated achievement at or above Level 3, the provincial standard. There was no change from 2003–2004.
- In 2004–2005, the percentage of students who performed at Level 1 decreased by 2%, and the percentage performing at Level 2 increased by 2% compared to 2003–2004.
- Over the past four years, the percentage of students who performed at or above the provincial standard has increased from 49% to 68%.

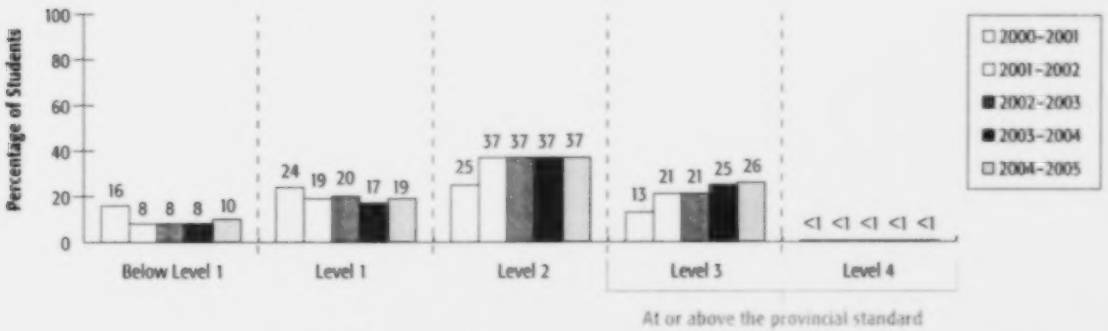
Grade 9 Applied Mathematics

Comparison of Results over Time

		2000–2001 # = 41 708	2001–2002 # = 47 220	2002–2003 # = 48 426	2003–2004 # = 50 430	2004–2005 # = 51 155
Percentage of Students	Level 4	<1%	<1%	<1%	<1%	<1%
	Level 3	13%	21%	21%	25%	26%
	Level 2	25%	37%	37%	37%	37%
	Level 1	24%	19%	20%	17%	19%
	Below Level 1	16%	8%	8%	8%	10%
	NEIS	15%	6%	4%	5%	N/A*
	No Data	6%	7%	8%	6%	6%
	Exempt	3%	2%	2%	1%	1%
	At or Above the Provincial Standard†	13%	21%	21%	26%	27%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



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Observations

- In 2004–2005, 27% of Grade 9 students taking applied mathematics demonstrated achievement at or above Level 3, the provincial standard.
- The percentage of students who performed at or above the provincial standard increased by 1% compared to 2003–2004.
- The percentages of students who performed at Level 1 and Below Level 1 increased by 2% in each case. This may in part be a result of the elimination of the NEIS designation.
- Over the past four years, the percentage of students who performed at or above the provincial standard has more than doubled from 13% to 27%.

Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics

Trends: Grade 3

Contextual Information*

	2001–2002	2002–2003	2003–2004	2004–2005
Number of Students	139 727	140 860	141 245	135 740
Students participating in reading†	94%	93%	93%	94%
writing†	94%	94%	94%	94%
mathematics†	95%	95%	94%	95%
Female	48%	48%	48%	48%
Male	51%	51%	51%	51%
ESL/ELD learners‡	5%	5%	6%	7%
Students with special needs (excluding gifted)‡	17%	17%	12%	11%
Born outside Canada	11%	11%	11%	11%
In Canada less than one year	2%	1%	1%	1%
In Canada one year or more but less than three years	3%	3%	2%	2%
In Canada three years or more	5%	6%	6%	7%
First language learned at home was other than English	19%	19%	20%	20%
Attended three or more schools since Grade 1	8%	8%	8%	8%

* Contextual information is derived from the Student Information Form completed by the school and the Student Questionnaire completed by students. Some data may be missing because they were not reported by the school or the students.

† Some French Immersion students did not write all components of the assessment in Grade 3; the percentages shown are based on the number of students who were expected to write each component.

‡ See the Explanation of Terms.

Observations

- Although the enrolment of students in Grade 3 decreased in 2004–2005 from the previous three years, the characteristics of the population remained relatively stable. In 2004–2005, there was a small increase in the percentage of ESL/ELD learners and a similar small increase in the percentage of students born outside Canada who had lived here for three years or more.
- There was a slight decrease in the percentage of students with special needs (excluding gifted).

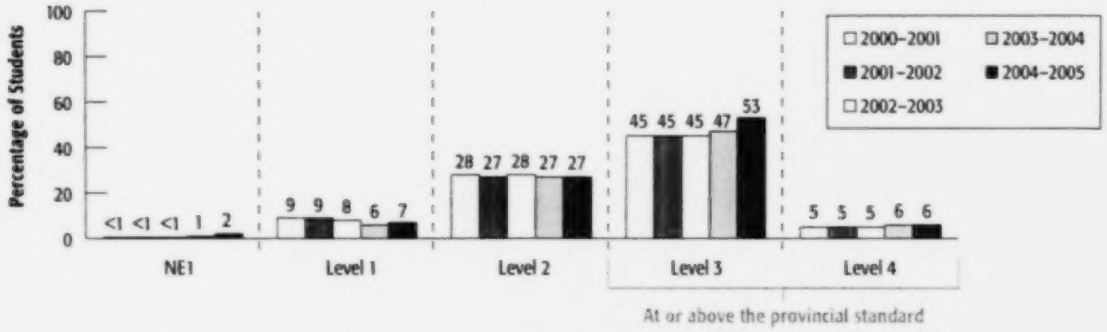
Trends in Reading

Percentage of All Grade 3 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	Number of Students	138 422	136 888	138 198	138 290	132 667
	Level 4	5%	5%	5%	6%	6%
	Level 3	45%	45%	45%	47%	53%
	Level 2	28%	27%	28%	27%	27%
	Level 1	9%	9%	8%	6%	7%
	NE1	<1%	<1%	<1%	1%	2%
	NEIS	7%	7%	8%	6%	N/A*
	No Data	1%	<1%	1%	1%	1%
	Exempt	6%	6%	6%	6%	5%
	At or Above the Provincial Standard†	49%	50%	50%	54%	59%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- There has been improvement in reading achievement over the past two years. For example, the percentage of Grade 3 students at or above Level 3, the provincial standard, in reading increased by 5% to 59% in 2004–2005 from 54% in 2003–2004.
- Over the past four years, the percentage of students achieving Levels 1 and 2 (below the provincial standard) has decreased slightly, from 37% in 2000–2001 to 34% in 2004–2005.
- The percentage of students achieving Level 4 (above the provincial standard) has remained relatively stable at 5–6% over the past five years.

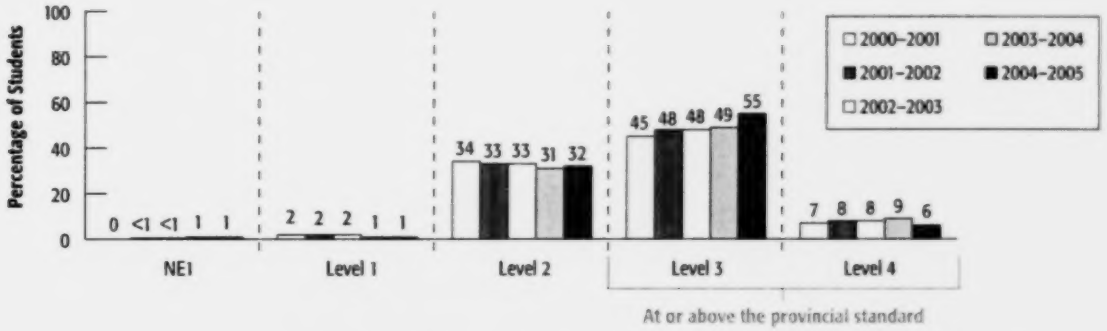
Trends in Writing

Percentage of All Grade 3 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	**Number of Students**	138 422	136 886	138 198	138 290	132 667
	Level 4	7%	8%	8%	9%	6%
	Level 3	45%	48%	48%	49%	55%
	Level 2	34%	33%	33%	31%	32%
	Level 1	2%	2%	2%	1%	1%
	NE1	0%	<1%	<1%	1%	1%
	NEIS	6%	3%	4%	3%	N/A*
	No Data	1%	<1%	1%	1%	1%
	Exempt	5%	5%	5%	5%	5%
	At or Above the Provincial Standard†	52%	55%	55%	58%	61%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- The percentage of Grade 3 students performing at or above Level 3, the provincial standard, in writing increased by 3% to 61% in 2004–2005 from 58% in 2003–2004.
- There has been improvement in writing achievement over the past two years and an increase of 9% in the percentage of students performing at or above the provincial standard since 2000–2001. There was a decrease this year in the percentage of students achieving Level 4 (above the provincial standard).

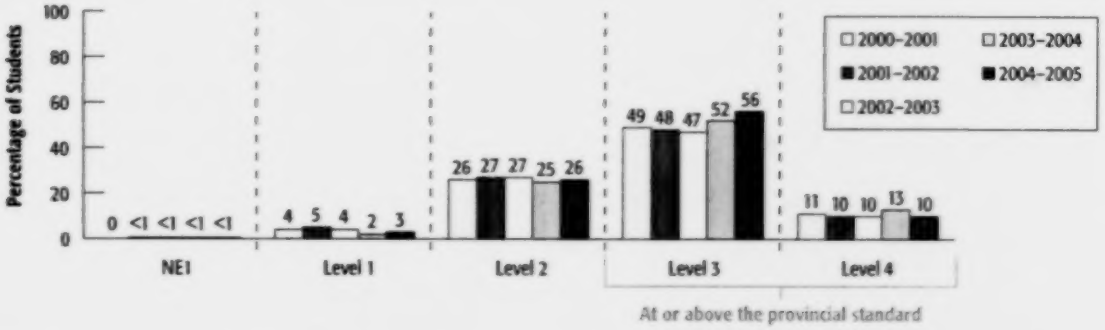
Trends in Mathematics

Percentage of All Grade 3 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	Number of Students	138 422	139 725	140 860	141 245	135 740
	Level 4	11%	10%	10%	13%	10%
	Level 3	49%	48%	47%	52%	56%
	Level 2	26%	27%	27%	25%	26%
	Level 1	4%	5%	4%	2%	3%
	NE1	0%	<1%	<1%	<1%	<1%
	NEIS	4%	5%	7%	3%	N/A*
	No Data	1%	<1%	1%	1%	1%
	Exempt	5%	5%	4%	5%	4%
	At or Above the Provincial Standard†	61%	58%	57%	64%	66%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

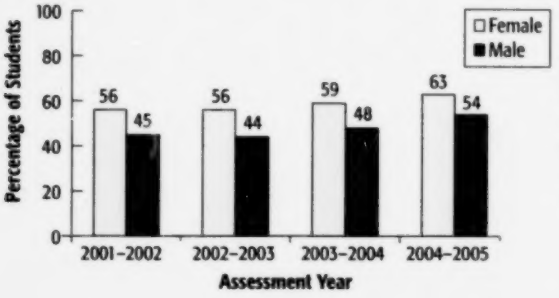
- Two-thirds of Grade 3 students performed at or above Level 3, the provincial standard, in mathematics. The rate of performance at or above Level 3 increased by 2% to 66% in 2004–2005 from 64% in 2003–2004.
- There has been an increase of 9% since 2002–2003 in the percentage of students performing at the provincial standard in mathematics.

Trends by Gender

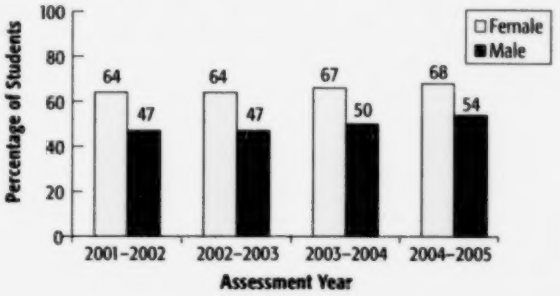
Percentage of All Grade 3 Students at or Above the Provincial Standard

	2001–2002				2002–2003				2003–2004				2004–2005			
	Female		Male		Female		Male		Female		Male		Female		Male	
	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%
Reading	66 112	56%	70 212	45%	66 564	56%	70 888	44%	66 576	59%	70 688	48%	63 841	63%	67 305	54%
Writing	66 112	64%	70 210	47%	66 564	64%	70 888	47%	66 576	67%	70 688	50%	63 841	68%	67 305	54%
Mathematics	67 705	59%	71 426	58%	68 142	58%	71 956	55%	68 291	65%	71 911	63%	65 604	66%	68 592	66%

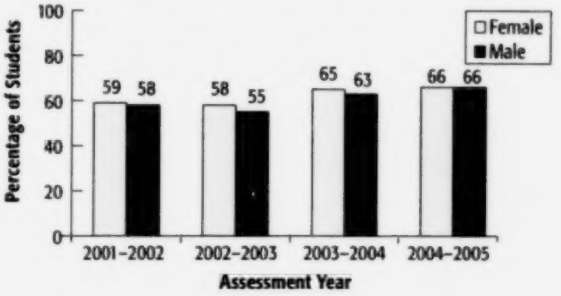
Reading



Writing



Mathematics



Observations

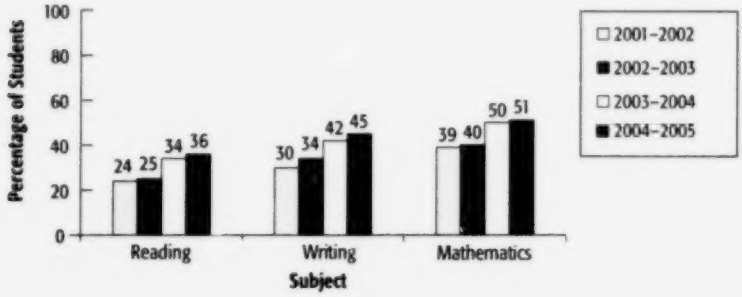
- In reading, both female and male students have shown steady improvement over the past two years. While, again in 2004–2005, more female than male Grade 3 students performed at or above the provincial standard for reading (63% female compared to 54% male), the gap was narrower than in previous years (9% in 2004–2005 compared to 11–12% in the previous three years).
- In writing, there have been small improvements in performance by both female and male students over the past two years. While the gap is narrowing, there was still a 14% difference between the percentage of female students performing at or above the provincial standard (68%) and that of male students (54%).
- In 2004–2005, there was no gap in male and female performance in mathematics. Two-thirds of both female and male students performed at or above the provincial standard.

ESL/ELD Learners*

Percentage of All Grade 3 ESL/ELD Learners at or Above the Provincial Standard

	2001–2002		2002–2003		2003–2004		2004–2005	
	Total #	%	Total #	%	Total #	%	Total #	%
Reading	7617	24%	7479	25%	8912	34%	8862	36%
Writing	7617	30%	7479	34%	8912	42%	8862	45%
Mathematics	7625	39%	7491	40%	8920	50%	8875	51%

* See Explanation of Terms.



Observations

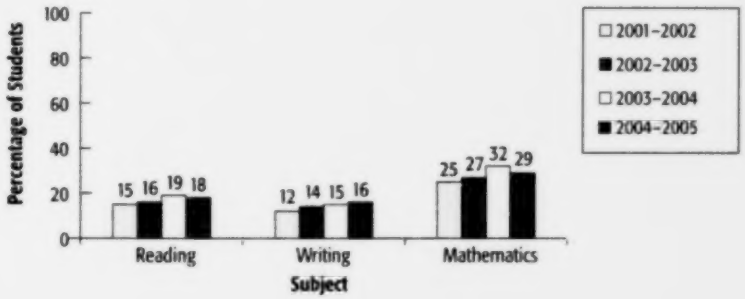
- In all three subject areas, there continue to be small but steady improvements in the percentage of Grade 3 ESL/ELD learners performing at or above the provincial standard. It is noteworthy that just over half these students performed at or above the provincial standard in mathematics.
- The gains this population made in reading and mathematics were more modest than those of the Grade 3 population as a whole; the gain in writing (3%) matched that of the Grade 3 population.

Students with Special Needs (Excluding Gifted)*

Percentage of All Grade 3 Students with Special Needs at or Above the Provincial Standard

	2001–2002		2002–2003		2003–2004		2004–2005	
	Total #	%	Total #	%	Total #	%	Total #	%
Reading	15 253	15%	16 265	16%	16 687	19%	14 883	18%
Writing	15 251	12%	16 265	14%	16 687	15%	14 883	16%
Mathematics	15 323	25%	16 338	27%	16 771	32%	14 971	29%

* See Explanation of Terms.



Observations

- In all three subject areas, the performance of Grade 3 students with special needs (excluding gifted) has been relatively stable over the past four years. In 2004–2005, 29% of students performed at or above the provincial standard in mathematics, while in reading and in writing only 18% and 16% of students, respectively, performed at or above the provincial standard.
- This population is not making gains consistent with those of the Grade 3 population as a whole, although it has improved since 2001–2002.

Trends: Grade 6

Contextual Information*

	2001–2002	2002–2003	2003–2004	2004–2005
Number of Students	145 351	144 676	146 169	143 421
Students participating in reading	96%	95%	95%	95%
writing	96%	95%	95%	95%
mathematics	96%	95%	95%	95%
Female	48%	49%	49%	48%
Male	51%	51%	51%	51%
ESL/ELD learners†	4%	3%	4%	4%
Students with special needs (excluding gifted)†	16%	16%	13%	13%
Born outside Canada	13%	13%	13%	13%
In Canada less than one year	1%	1%	1%	1%
In Canada one year or more but less than three years	3%	3%	2%	2%
In Canada three years or more	8%	8%	8%	9%
First language learned at home was other than English	18%	18%	19%	19%
Attended three or more schools since Grade 1	23%	24%	23%	23%

* Contextual information is derived from the Student Information Form completed by the school and the Student Questionnaire completed by students. Some data may be missing because they were not reported by the school or the students.
† See the Explanation of Terms.

Observation

- Although the enrolment of students in Grade 6 declined slightly in 2004–2005, the characteristics of the population have remained relatively stable from 2001–2002 to 2004–2005.

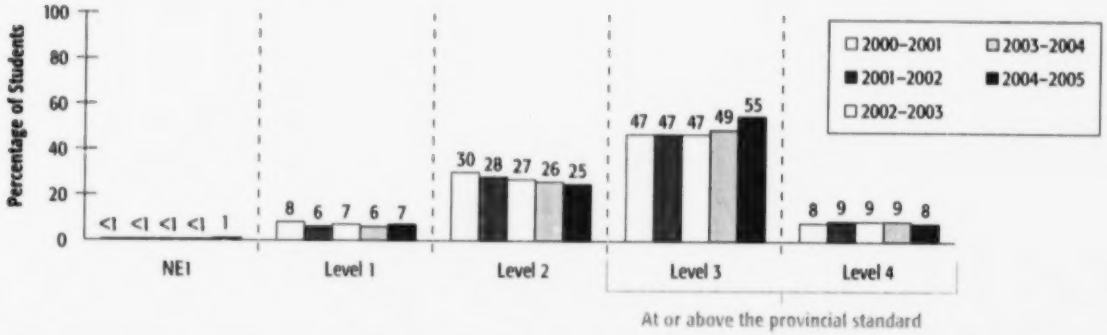
Trends in Reading

Percentage of All Grade 6 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	Number of Students	138 191	145 351	144 676	146 169	143 421
	Level 4	8%	9%	9%	9%	8%
	Level 3	47%	47%	47%	49%	55%
	Level 2	30%	28%	27%	26%	25%
	Level 1	8%	6%	7%	6%	7%
	NE1	<1%	<1%	<1%	<1%	1%
	NEIS	3%	6%	5%	5%	N/A*
	No Data	<1%	<1%	1%	1%	1%
	Exempt	4%	4%	4%	4%	4%
	At or Above the Provincial Standard†	55%	55%	56%	58%	63%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- In Grade 6, there has been improvement in reading achievement over the past two years. For example, the percentage of students performing at or above Level 3, the provincial standard, in reading increased by 5% to 63% in 2004–2005 from 58% in 2003–2004.
- Over the past four years, the percentage of students achieving Levels 1 and 2 (below the provincial standard) has decreased from 38% in 2000–2001 to 32% in 2004–2005.
- Over the past five years, the percentage of students achieving Level 4, above the provincial standard, has been relatively stable at 8–9%.

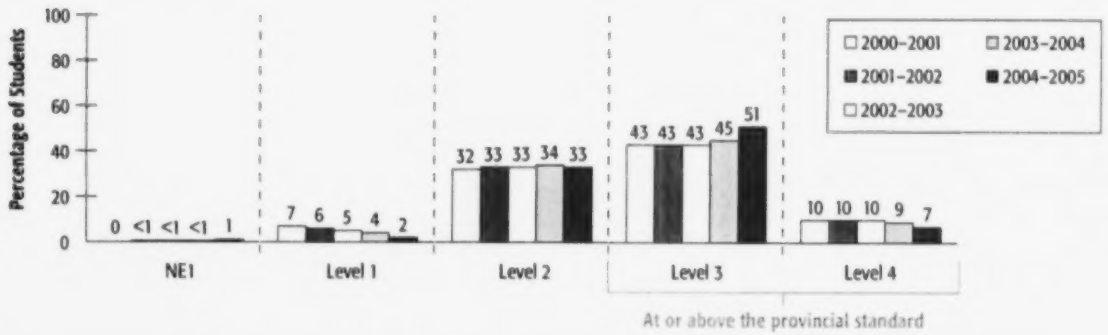
Trends in Writing

Percentage of All Grade 6 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	**Number of Students**	138 191	145 350	144 676	146 168	143 421
	Level 4	10%	10%	10%	9%	7%
	Level 3	43%	43%	43%	45%	51%
	Level 2	32%	33%	33%	34%	33%
	Level 1	7%	6%	5%	4%	2%
	NE1	0%	<1%	<1%	<1%	1%
	NEIS	5%	3%	3%	3%	N/A*
	No Data	<1%	<1%	1%	1%	1%
	Exempt	4%	4%	4%	4%	4%
	At or Above the Provincial Standard†	53%	53%	54%	54%	59%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observation

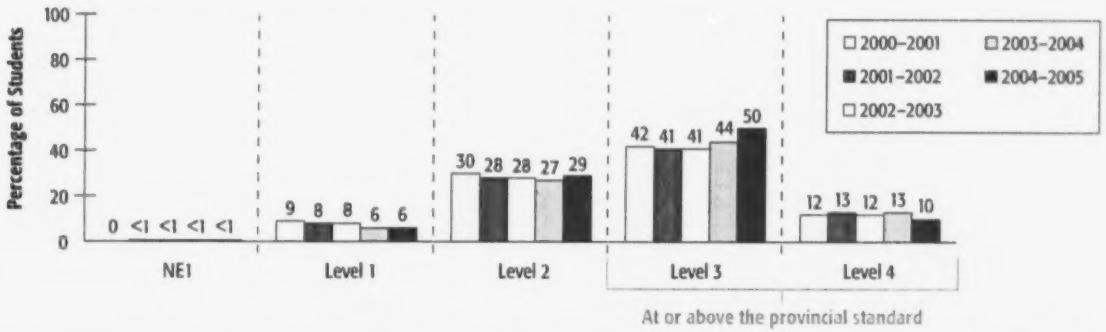
- The percentage of Grade 6 students performing at or above Level 3, the provincial standard, in writing increased by 5% to 59% in 2004–2005 from 54% in 2003–2004.

Trends in Mathematics

Percentage of All Grade 6 Students at All Levels

		2000–2001	2001–2002	2002–2003	2003–2004	2004–2005
Percentage of Students	Number of Students	138 191	145 351	144 676	146 168	143 421
	Level 4	12%	13%	12%	13%	10%
	Level 3	42%	41%	41%	44%	50%
	Level 2	30%	28%	28%	27%	29%
	Level 1	9%	8%	8%	6%	6%
	NE1	0%	<1%	<1%	<1%	<1%
	NEIS	3%	5%	6%	4%	N/A*
	No Data	<1%	<1%	1%	1%	1%
	Exempt	4%	4%	4%	4%	4%
	At or Above the Provincial Standard	54%	54%	53%	57%	60%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observation

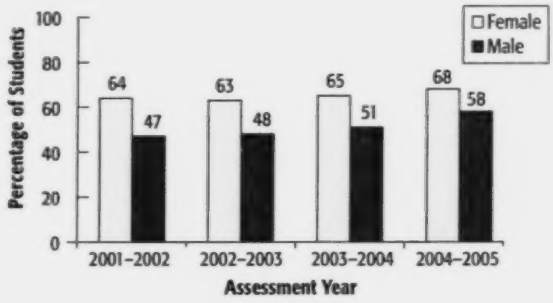
- In Grade 6, there has been improvement in mathematics achievement over the past two years. For example, the percentage of students performing at or above Level 3, the provincial standard, in mathematics increased by 3% to 60% in 2004–2005 from 57% in 2003–2004.

Trends by Gender

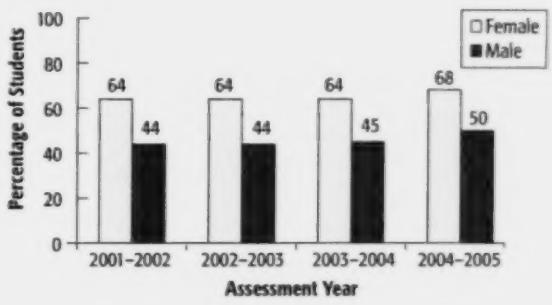
Percentage of All Grade 6 Students at or Above the Provincial Standard

	2001–2002				2002–2003				2003–2004				2004–2005			
	Female		Male		Female		Male		Female		Male		Female		Male	
	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%	Total #	%
Reading	70 309	64%	73 975	47%	70 297	63%	73 155	48%	70 913	65%	74 095	51%	68 858	68%	72 537	58%
Writing	70 308	64%	73 975	44%	70 297	64%	73 155	44%	70 913	64%	74 094	45%	68 858	68%	72 537	50%
Mathematics	70 309	55%	73 975	52%	70 297	55%	73 155	52%	70 913	60%	74 094	56%	68 858	60%	72 537	60%

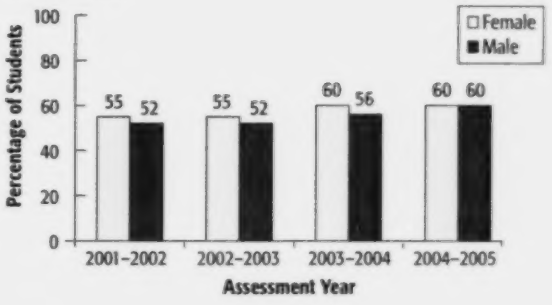
Reading



Writing



Mathematics



Observations

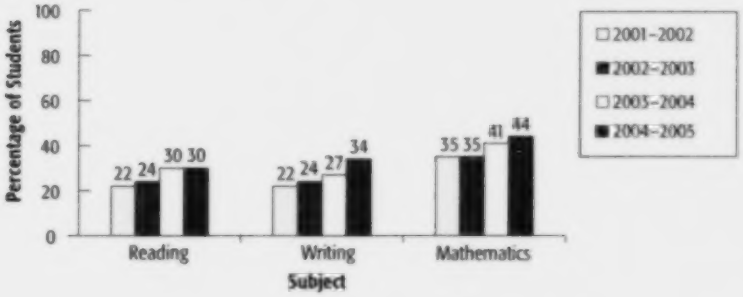
- In reading, female students have improved over the past three years, with 68% performing at or above the provincial standard in 2004–2005. Male students have demonstrated an improvement of 11% (47% to 58%) over the past three years. The gap between female and male students' performance has narrowed considerably from a difference of 17% in 2001–2002 to a difference of 10% in 2004–2005.
- In writing, the percentage of female and male students performing at or above the provincial standard improved by 4–5% compared with the stable performance of previous years. The gap between female and male students' achievement continues to be large (18%), although it has narrowed slightly from 20% in 2001–2002 and 2002–2003.
- In mathematics, 60% of female students performed at or above the provincial standard both this year and last. The percentage of male students performing at or above the provincial standard increased by 4% to 60% in 2004–2005 from 56% in 2003–2004. There was no gap between the mathematics performance of female and male Grade 6 students in 2004–2005.

ESL/ELD Learners*

Percentage of All Grade 6 ESL/ELD Students at or Above the Provincial Standard

	2001–2002		2002–2003		2003–2004		2004–2005	
	Total #	%	Total #	%	Total #	%	Total #	%
Reading	5208	22%	4930	24%	5532	30%	5178	30%
Writing	5208	22%	4930	24%	5532	27%	5178	34%
Mathematics	5208	35%	4930	35%	5532	41%	5178	44%

* See Explanation of Terms.



Observations

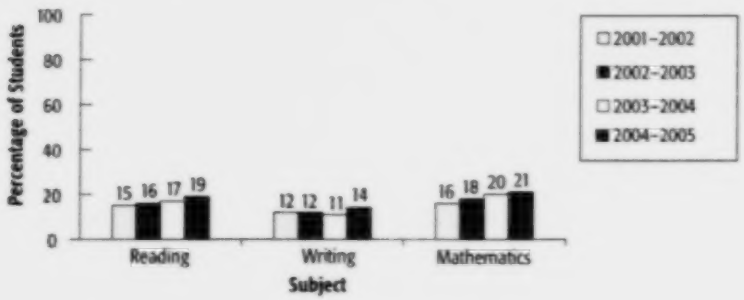
- Over the past three years, there have been improvements in the performance of ESL/ELD learners in all three subject areas in Grade 6.
- These students' gains in achieving the provincial standard for writing exceeded those made by the Grade 6 population as a whole. Their gains match those of their counterparts in mathematics; in reading, they are making smaller gains than the Grade 6 population as a whole.

Students with Special Needs (Excluding Gifted)*

Percentage of All Grade 6 Students with Special Needs at or Above the Provincial Standard

	2001–2002		2002–2003		2003–2004		2004–2005	
	Total #	%	Total #	%	Total #	%	Total #	%
Reading	19 055	15%	19 187	16%	19 681	17%	19 264	19%
Writing	19 054	12%	19 187	12%	19 681	11%	19 264	14%
Mathematics	19 055	16%	19 187	18%	19 681	20%	19 264	21%

* See Explanation of Terms.



Observations

- In all three subject areas, there have been small improvements in the performance of Grade 6 students with special needs (excluding gifted) over the past three years. It must be noted, however, that for the most part, fewer than 20% of students with special needs are performing at or above the provincial standard.
- In 2004–2005, Grade 6 students with special needs made gains in achieving the provincial standard in all subjects, but their gains were more modest than those of the Grade 6 population as a whole.

Summary of Findings: Grades 3 and 6

Grade 3 Assessment of Reading, Writing and Mathematics

- In 2004–2005, 59% of students performed at or above Level 3, the provincial standard, in reading; 61%, in writing; and 66%, in mathematics.
- The rate of performance at or above the provincial standard in reading improved by 5% over 2003–2004, continuing a four-year trend of improvement. While more females than males performed at or above the provincial standard, the gender gap in reading performance is narrowing: 9% in 2004–2005 compared with 11–12% in the three previous years.
- Students continued a four-year trend of improvement in writing achievement. While the gender gap narrowed, there is still a 14% difference between the percentage of female students performing at or above the provincial standard in writing (68%) and that of male students (54%).
- Two-thirds of students performed at or above the provincial standard in mathematics (an increase of 9% over 2002–2003). There was no gender gap in mathematics achievement: two-thirds of both male and female students performed at or above the provincial standard.
- In all three subject areas, ESL/ELD learners continued to show small but steady improvements in the percentage performing at or above the provincial standard. In mathematics, over half of ESL/ELD learners performed at or above the provincial standard.

Grade 6 Assessment of Reading, Writing and Mathematics

- There was continued progress in the number of students achieving the provincial standard.
- In 2004–2005, 63% of students performed at or above Level 3, the provincial standard, in reading; 59%, in writing; and 60% in mathematics.
- The rate of achievement of the provincial standard in both reading and writing improved by 5%, and in mathematics it improved by 3%, compared with 2003–2004.
- In reading, the 17% gap between female and male students in 2001–2002 has narrowed considerably to a 10% gap this year.
- In writing, the gap between female and male students' achievement continued to be substantial at 18%, although it has narrowed slightly from the 20% gap in 2001–2002 and 2002–2003.
- In mathematics, there was no gap in performance between the genders this year.
- Over the past three years, there have been improvements in the performance of ESL/ELD learners in all three subject areas.

Grades 3 and 6

- The percentage of students at Level 3 increased in all subjects in both Grade 3 and Grade 6.
- Male students in both grades made greater gains in achieving the provincial standard in all three subjects than did female students.
- The percentage of students at Level 4 decreased in writing and mathematics in Grade 3 and in all subjects in Grade 6.

Strategies for Educators: Grades 3 and 6

Informing Professional Practice

A study of long-term trends and the results of the 2004–2005 Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics indicates that efforts at every level—Ministry, board, school, classroom and home—are having positive effects on student demonstrations of knowledge and skill. However, there is still room for improvement; the following pages of this report provide practical and helpful suggestions that may expand and accelerate student success.

Addressing the Achievement Data

The following suggestions will help students develop and demonstrate their knowledge and skills in reading, writing and mathematics. The suggestions are based on Grades 3 and 6 EQAO assessment data and feedback from scorers.

EQAO suggests that, because

- *many students do not develop their answers enough to demonstrate a "considerable" or "thorough" understanding,* teachers coach students by encouraging and providing opportunities for students to
  - read and understand the requirements of questions;
  - use words from the questions in their answers;
  - develop their answers with details and examples and, in answers to questions following a reading selection, with references to the reading selection;
  - understand the characteristics of responses at different levels on a rubric and
  - review their answers for correctness, reasonableness and completeness.
- *some students do not understand the meaning of key words in questions,* teachers use the words and phrases from EQAO assessments such as "describe," "explain," "compare," "using information in the reading selection and your own ideas," "solve" and "explain your thinking" in questions and coach students on how to write the kind of answer the words require (see the new Key Words provided for the mathematics component of the assessments on the EQAO Web site).
- *some students are unfamiliar with strategies related to responding to questions, such as eliminating obviously incorrect answers and referring to the reading selections or the wording of the question when choosing the correct option,* boards, schools and teachers prepare materials to help students develop a variety of strategies for answering these questions.

EQAO suggests that, because

- *some students perform better on some reading and writing tasks than others,* teachers provide students with frequent opportunities to read and respond to a variety of fiction and non-fiction materials and write in a variety of writing forms, as prescribed by *The Ontario Curriculum, Grades 1–8.*
- *many students perform better when answering questions about short reading selections than when answering questions about long reading selections,* teachers provide students with strategies for reading and responding to longer reading selections, such as reading the questions first and highlighting relevant ideas and information in the selection while reading.
- *many Grade 6 students, when responding to a question about the narrative nature of "A Flag of Canada's Own," refer to characteristics of fiction,* teachers help students understand the characteristics of narrative structure in both non-fiction and fiction.
- *performance at the top half of a scoring rubric is an indicator of performance at or above the provincial standard and, on average, 20% more students in Grades 3 and 6 score in the top half of the writing rubric dealing with use of conventions than in the top half of the writing rubric dealing with topic development,* boards, schools and teachers continue their current successful work in helping students write correctly, and place more emphasis on helping students organize their writing around well-developed, well-supported, clear and substantial ideas.
- *Grade 3 students score most poorly on writing questions dealing with compound words and the selection of appropriate verb forms to complete a sentence,* teachers ensure that students in the primary division have the opportunity to develop the skills outlined in the curriculum expectations related to vocabulary building and the correct use of verbs.
- *Grade 6 students score most poorly on writing questions dealing with antonyms and sentence combining,* teachers ensure that students in the junior division have the opportunity to develop the skills outlined in the curriculum expectations related to vocabulary building and sentence structure.
- *many Grade 3 and Grade 6 students have difficulty with mathematics questions that require abstract thinking,* boards, schools and teachers provide students with manipulatives to investigate and develop mathematical concepts and encourage their use during the year and on the mathematics component of the EQAO assessments.
- *many Grade 3 students provide answers that suggest they do not understand the question (e.g., mathematics questions 19 and 45),* teachers ensure students appreciate the importance of carefully reading mathematical questions so that they understand what is required in the answer, and provide students with strategies for reading and understanding the requirements of a question (e.g., look for clues in the context or the words to help them eliminate wrong answers in a multiple-choice question).
- *many Grade 3 students have difficulty with mathematics questions that contain charts (e.g., mathematics questions 17, 21, 27 and 39),* teachers provide students with many opportunities to construct their own charts, by hand and using technology, and encourage them to read and interpret a variety of charts in different contexts.

EQAO suggests that, because

- *many Grade 6 students use simple mathematical concepts and procedures inappropriately to answer questions of some complexity (e.g., mathematics questions 15, 18, 19, 36 and 37),* teachers ensure that students appreciate the importance of carefully reading the mathematical questions so that they understand what is required in the answer, and provide students with strategies for reading and understanding the requirements of a question (e.g., look for clues in the words or the context to help them eliminate obviously unreasonable answers).
- *many Grades 3 and 6 students have difficulty when a variety of metric units, such as mm, cm, g, mL, are used in the same mathematics question (e.g., mathematics Grade 3, question 18; Grade 6, question 25),* schools and teachers provide opportunities for students to understand the differences between these units and to apply them in appropriate contexts (e.g., volume is measured in mL or L, but not in cm or g; when numbers are provided in different units, a common unit must be used).
- *many students, when answering open-response questions in mathematics, have difficulty explaining their thinking in mathematical terms,* teachers coach students by modelling such explanations and providing opportunities for students to practise (orally and in writing) the use of mathematical language to explain the thinking behind their mathematical processes and applications.
- *some students seem less familiar with some strands in the mathematical curriculum than others,* boards, schools and teachers integrate all five strands into the mathematics program and look for opportunities to integrate them into mathematical applications in other subjects throughout the school year.

School Success Stories: Grades 3 and 6

This year, EQAO is privileged to showcase 12 school communities that exemplify the many successful learning environments in publicly funded schools across the province.

Several key themes emerge from the stories below. The schools, which represent a range of geographic and demographic factors, have developed many successful and innovative strategies. No single initiative is responsible for student achievement, but the strides in student success would not be possible without one common ingredient: a shared responsibility for student learning.

Some of the themes that schools identify as factors in addressing the literacy and numeracy needs of students include professional learning communities; team responsibility for EQAO assessment; data-driven decision making; a whole-school approach to literacy, numeracy and student achievement; a substantial program of professional development for literacy and numeracy; small-group learning for language and mathematics; high-quality teaching; parental involvement; one-student-at-a-time strategies; literacy blocks; school and board alignment and implementing Ministry of Education initiatives.

EQAO celebrates these schools' stories and applauds the efforts of Ontario's educators, parents and members of the public as we all work together to inspire students to become successful learners.

Algonquin Avenue Public School, Thunder Bay
Lakehead District School Board

Algonquin Avenue Public School is a junior kindergarten to Grade 8 elementary school with approximately 400 students. It serves a predominantly English-speaking population in a mixed urban and industrial setting.

In 2004–2005, the percentages of Grade 3 students meeting or surpassing the provincial standard were 69% in reading, 77% in writing and 79% in mathematics. In Grade 6, the percentages were 67% in reading, 59% in writing and 76% in mathematics.

We've adopted a sustained and consistent approach to improving literacy and numeracy that involves the whole school. School leaders, teachers, students, parents and community volunteers all have a critical role to play in student success.
Barb Potocnik, Principal

The underpinning of Algonquin's success has been a focus on assessment-driven instruction—on creating a link between teaching and explicit student learning needs—coupled with a substantial program of professional development in literacy and numeracy for teaching staff and school leaders. With a particular focus on enhancing the achievement of Level 1 and Level 2 students, the school provides block time for literacy and numeracy each day and makes extensive use of past EQAO assessment items as well as high-quality resources carefully matched to programming in its instructional practice. Algonquin practises a whole-school approach reinforced by a strong communications program, in which parents, school council and community members are engaged, informed and valued contributors.

Dunlop Elementary School, Ottawa
Ottawa-Carleton District School Board

Dunlop Elementary School is a kindergarten to Grade 6 school of 300 students from a mix of cultural and socio-economic backgrounds. A significant number of students speak a language other than English at home. In 2004–2005, the percentages of Grade 3 Dunlop students meeting or surpassing the provincial standard were 81% in reading, 84% in writing and 88% in mathematics. In Grade 6, the percentages were 78% in reading, 51% in writing and 88% in mathematics.

Our core value at Dunlop is to create an environment that meets the individual needs of each student. Our staff believe that the children are our shared responsibility. We work collaboratively to ensure that every child's program is providing him or her with the opportunity to be successful. We have created a caring learning culture that is motivating and extremely rewarding for both student and teacher.

Terry Davies, Principal

Dunlop Elementary School has implemented small-group learning for language and mathematics for primary students. Human resources are pooled so that each grade-specific pod of up to 20 students can work with a teacher for 60 minutes of dedicated math instruction and 80 minutes of language-arts instruction daily. Particular emphasis is put on identifying at-risk students in Grade 1 and providing these children with daily reading coaches, who may be education assistants or trained volunteer parents. The school has launched various initiatives to enhance writing skills and has tied these to its multicultural programs. One project saw students create their own books and use a computer to complete the assignment as a means of incorporating technology into their learning.

Holy Family Catholic School, Wallaceburg
St. Clair Catholic District School Board

Holy Family Catholic School serves 270 students in a community of 12 000. In the wake of a decade-long economic downturn, the school serves an increasing proportion of students from lower-income and single-parent families, as well as more affluent students from neighbouring farms. A special-education team supports students with special needs.

In 2004–2005, the percentages of Grade 3 students meeting or surpassing the provincial standard were 52% in reading, 59% in writing and 78% in mathematics. In Grade 6, the percentages were 59% in reading, 56% in writing and 56% in mathematics.

High-quality teaching will always be at the heart of school improvement. Our staff are willing to share their expertise, willing to engage in meaningful professional development and willing to adapt their teaching practices. That's a formula for success.

Doreen Edwards, Principal

Each year at Holy Family Catholic School, a team of classroom teachers, program-resource teachers and the principal analyze EQAO data, looking for both long-term trends and current strengths and weaknesses. With a focused goal for the coming year, the team brainstorms what will be required for success, including resources, professional development, teaching strategies and school programs. One successful approach has involved small-group instruction and assessment of mathematics with a half-time teacher, and timetabling that allows students to participate in this intensive support program in rotating groups. A well-rounded language program has also been established across all grades, which has been a major contributor to improved achievement. In addition, ongoing professional development, sharing and mentoring among teachers, the establishment of a high-quality resource collection and the engagement of parents as partners in education have built a strong foundation for success.

McNaughton Avenue Public School, Chatham
Lambton Kent District School Board

McNaughton is a dual-track school with a junior kindergarten to Grade 8 English program and a junior kindergarten to Grade 5 French Immersion program. Located on the edge of Chatham, the school has an urban-rural population mix of 650 students.

In 2004–2005, the percentages of Grade 3 McNaughton students meeting or surpassing the provincial standard were 72% in reading, 76% in writing and 83% in mathematics. In Grade 6, the percentages were 75% in reading, 75% in writing and 73% in mathematics.

We have a curriculum team, and we give them release time. The four divisional leaders and the vice-principal have weekly meetings to discuss concerns and plan strategies. It's been tremendously beneficial. It has to be a school focus. We have to do it as one group.

Bob Myers, Principal

Parents are the school's best partners, which is another element instrumental to student achievement. Learning at home is an extension of learning at school, with parents supporting the school's initiatives. Parents are active in the home-and-school association and on the school council. The council has 21 members, and parents have to reapply after a two-year term. Four staff members are on the council as well. In addition, McNaughton uses EQAO data as one piece of information to support overall school improvement planning.

Monsignor Castex Separate School, Midland
Simcoe Muskoka Catholic District School Board

Monsignor Castex Separate School is a rural school on the shores of Georgian Bay serving 258 students from kindergarten to Grade 8.

In 2004–2005, the percentages of Grade 3 students meeting or surpassing the provincial standard were 80% in reading, 75% in writing and 75% in mathematics. In Grade 6, the percentages were 74% in reading, 48% in writing and 71% in mathematics.

I believe our success comes down to having a shared vision for literacy and numeracy in the school and making purposeful choices about what we're going to accomplish each year. It's important to keep in mind that you succeed one level at a time, and one student at a time.

John Young, Principal

Monsignor Castex has built a strong research-based foundation for school improvement. Using EQAO and report card data as well as authentic teacher-based assessment, the school focuses on data-driven decision making. Through the data, they select a primary improvement target for each year and pinpoint areas of weakness that need to be addressed. Over the past year, the school focused on the development of a balanced literacy program, providing substantial professional development to teachers, who, in turn, used assessment as a primary tool to inform teaching practice. A Reading Recovery teacher and a literacy teacher also played key roles in identifying at-risk students and helping teachers implement effective strategies for improvement. A school-wide two-hour literacy block, a school literacy day and the development of a strong literacy resource library for teachers and students all contributed to building the critical mass necessary for whole-school success.

Mount Carmel School, Kenora
Kenora Catholic District School Board

Mount Carmel, an older school in downtown Kenora, draws junior kindergarten to Grade 6 students from all around the area, including the inner city and three Native reserves on the city's outskirts. The school's population of 175 children is 95% Aboriginal.

In 2004–2005, the percentages of Grade 3 Mount Carmel students meeting or surpassing the provincial standard were 68% in reading, 55% in writing and 68% in mathematics. In Grade 6, the percentages were 48% in reading, 43% in writing and 43% in mathematics.

I walk into the classroom and the students run up to me and say, "Come see what I wrote. Come see what I'm reading." Everything they show me is reading and writing. The confidence these kids have in their ability and in what they want to share shows the progress they've made.

Trudy Cederwall, Principal

The school is a community and everyone has an investment in it: teachers, parents and students. In fact, most staff were born and raised in Kenora. The school's professional learning community is extremely well-developed. It's a team effort at Mount Carmel, from its hockey program to its team teaching. The school council is small but dedicated. A daily multi-age literacy group is part of the one-hour literacy block when 30 minutes is allocated for individual reading time in small groups. Significant professional development has been implemented to address literacy. Mount Carmel uses EQAO data to look for areas where it has done well and areas for improvement. To assist in future budget planning and decisions about additional support or professional development, Mount Carmel analyzes the data for gender response and any trends in marks.

Parkland Public School, Sault Ste. Marie
Algoma District School Board

Parkland is a junior kindergarten to Grade 8 elementary school in the residential east end of Sault Ste. Marie. The school has special-education components for autistic and behavioural students. With 325 students, it is the largest public elementary school in the Sault.

In 2004–2005, the percentages of Grade 3 Parkland students meeting or surpassing the provincial standard were 55% in reading, 58% in writing and 81% in mathematics. In Grade 6, the percentages were 86% in reading, 69% in writing and 75% in mathematics.

The focus is on school improvement. We talk about it, keep it in the forefront and celebrate our successes.

JoAnn McKenzie, Principal

The "one student at a time" strategy is making a difference at Parkland. Teachers look at the entire portfolio of data on a child, including report cards, psychological assessments, attendance records and any reports of behaviour problems. They talk about the child, what the data tells them and how to move the student to the next level. Sharing and analyzing data and information, including EQAO results, is viewed as a full-school responsibility at Parkland. Teachers are involved in the analysis of EQAO data from the beginning; it is not just the principal who looks at the achievement results. The school recommends the guide *Using EQAO Data to Promote Student Success*. Teachers talk about literacy and numeracy daily and ask for extra meetings so they can talk about best practices. Some best practices are 100-minute blocks for literacy and numeracy teaching and learning strategies, personal home contact, levelled books, learning carpets and increased daily physical activity. Staff meet during nutrition breaks (Parkland follows a balanced school day shedule), and school funds are used to release teachers to discuss data and new initiatives.

Sacred Heart Elementary School, Timmins
Northeastern Catholic District School Board

The only Catholic French Immersion school in Timmins, Sacred Heart Elementary draws 265 students from all parts of the city. Heavy parental involvement is an important characteristic of this junior kindergarten to Grade 6 school.

In 2004–2005, the percentages of Grade 3 students meeting or surpassing the provincial standard were 86% in reading, 100% in writing and 100% in mathematics. In Grade 6, the percentages were 66% in reading, 66% in writing and 59% in mathematics.

The development of a positive school environment and culture that embraces EQAO assessment as a learning opportunity for staff and students alike has been one of our most powerful strategies for success. All teachers view EQAO assessment as a team responsibility. As well, our shift to 50% French Immersion programming, with anglophone teachers assuming the responsibility of English-language instruction, has had a monumental effect on our success.

Ted Weltz, Principal

This year, Sacred Heart Elementary School saw a dramatic increase over previous years in the percentages of Grade 3 and Grade 6 students who met or surpassed the provincial standard. The school credits, in addition to modifications to its French Immersion programming, a number of proactive measures for fueling student achievement. It has established collaborative in-school learning communities that reflect thoroughly on the EQAO assessment results along with other data to develop goals and strategies for improving student learning. A balanced literacy approach to language instruction has been put in place, and the school has now implemented a special focus on numeracy programming to better meet curriculum expectations and learning needs. Sacred Heart is dedicated to the principle that all stakeholders need to collaborate to enable a higher level of student accomplishment. The school facilitates extensive professional dialogue not only among staff but also between teachers and parents and guardians. Efforts are made to ensure that parents recognize the purpose of all assessments, including EQAO's, and that they are well-versed in supportive strategies for helping their children prepare for success.

St. Catherine Catholic School, Metcalfe
Ottawa-Carleton Catholic District School Board

St. Catherine is a small rural school in a family-oriented village community south of Ottawa. Students come to this junior kindergarten to Grade 6 school from the village and outlying subdivision and from farms. Of its 193 students, 21 have Individual Education Plans.

In 2004–2005, the percentages of Grade 3 St. Catherine students meeting or surpassing the provincial standard were 83% in reading, 83% in writing and 74% in mathematics. In Grade 6, the percentages were 90% in reading, 86% in writing and 100% in mathematics.

We have excellent team effort at all levels—home, parish, school and board—in sharing responsibility for student learning. We use a team approach for teaching students through the combined efforts of the classroom teacher with a remedial teaching partner and the assistance of a resource teacher when required. The teachers implement the curriculum with shared goals, fine resources and targeted teacher training.

Anna Yates, Principal

EQAO data is a useful tool for devising a school focus. Staff members look at strengths and weaknesses and use the data as evidence for informed decision making. The data allows staff to develop precise directions. The board provides professional development for teachers on site and at the Catholic Education Centre. A central collaborative team of specialists meets at the school once a term to discuss students with difficulties and to brainstorm strategies for improvements in teaching and learning. Parents are actively involved in various ways, such as fundraising and coaching literacy. St. Catherine is known as the school that dances. Staff and students begin each day with 10 minutes of dance and a quick assembly with prayer, announcements and the anthem. It is a school community with a rich, unique culture and a positive, inclusive atmosphere.

Sts. Martha and Mary Catholic School, Mississauga
Dufferin-Peel Catholic District School Board

Sts. Martha and Mary is in a quiet residential neighbourhood in the east end of Mississauga. About 10% of the 457 students have been residents of Canada for less than five years and are supported by a part-time ESL program. The school is flavoured with a mixture of cultures.

In 2004–2005, the percentages of Grade 3 Sts. Martha and Mary students meeting or surpassing the provincial standard were 88% in reading, 90% in writing and 90% in mathematics. In Grade 6, the percentages were 88% in reading, 81% in writing and 88% in mathematics.

Overall, I must praise our teachers and our hard-working students. In the end it is the teacher in front of the students who has made the real difference. Each staff member adds to the child's educational foundation.

Susan Steer, Principal

Administrators and teachers at Sts. Martha and Mary relish opportunities to share, model and refine practice through team teaching. The Grades 3 and 6 teachers have experience with the assessments, have taken opportunities to serve as scorers for EQAO and have experience in special-education delivery models, such as Reading Recovery and Later Literacy. They have served as leaders in sharing assessment and teaching strategies. They are instructionally focused, compassionate and competitive. Also, the school has consistently avoided combining grades in Grades 3 and 6. This allows teachers to dedicate their efforts to teaching one curriculum well.

Waverly Public School, Oshawa
Durham District School Board

Waverly Public School is a kindergarten to Grade 8 school with a student population of approximately 450. It serves an urban area of Oshawa with a modest socio-economic profile. Predominantly industrial- and service-sector workers, the parents often work shifts or evenings and this, coupled with a large proportion of single-parent families, results in a relatively low degree of parental involvement.

In 2004–2005, the percentages of Grade 3 students meeting or surpassing the provincial standard were 80% in reading, 72% in writing and 88% in mathematics. In Grade 6, the percentages were 88% in reading, 88% in writing and 85% in mathematics.

I think two critical ideas inform our school improvement process. The first is that you need to distinguish between what you can control and what you can't, and focus on those areas where you have the power to effect change. The second, which is embedded in our school mission, is that positive change requires a focus on what our students and community are, *rather than what they* are not. *Students need to be put into situations in which they can win.*

David Brownson, Principal

School ownership of student achievement is a central feature of school improvement at Waverly Public School. Working as a team, staff have used EQAO and other data as a means to align curriculum, instruction and resource materials with provincial expectations and the specific learning needs of students. Particularly effective has been the development of "Nudge the Budge" groups: students are withdrawn from regular classes to receive intensive support in thinking and writing skills using aligned materials and clear skill objectives. This strategy not only provides critical support to students facing learning challenges but also enables teachers to provide enrichment activities to high-achievers who remain in the classroom. Other successful strategies particularly targeted to the needs of this student population include using parent volunteers to read to children, focusing on student self-esteem and building a strong culture of assessment-based instruction that gives students an opportunity to succeed.

William Berczy Public School, Unionville

York Region District School Board

The school has 715 students from kindergarten to Grade 8: 319 from Grades 4 to 8 are identified as gifted; approximately10% of the students have been identified with other special needs; 61% of last year's Grade 6 students spoke a first language other than English. Both the student body and staff are culturally mixed.

In 2004–2005, the percentages of Grade 3 William Berczy students meeting or surpassing the provincial standard were 86% in reading, 92% in writing and 98% in mathematics. In Grade 6, the percentages were 92% in reading, 87% in writing and 95% in mathematics.

Many people assume the students are performing well only because of the large number of gifted students. It's not a cause and effect. It's about other factors, such as the teachers using effective strategies, ongoing monitoring and assessment, and data-based decisions, that lead to student improvement. It's about what we're doing in schools, which is supported by parents and the coordinated work of the board.

Clayton La Touche, Principal

William Berczy's school plan is aligned with the board's plan for continuous improvement. The number one focus is literacy. All schools belong to the board's Literacy Collaborative, and each school has a literacy leadership team. At William Berczy, the work starts when the children enter kindergarten. The students belong to all teachers and all staff. It's not just the work of Grade 3 and Grade 6 teachers but the work of the entire team. This is reflected in strategies such as cross-grade groupings, used in the primary division three years ago. Teachers assessed every student and created flexible, levelled groups for instruction during the literacy block.

The school timetable is organized with designated literacy blocks for each division. Intervention and special assistance are mainly provided within classrooms, but students who need extra assistance are sometimes withdrawn into "booster groups" to work on specific skill sets, such as writing strategies and reading comprehension.

The school motto, coined by a parent, sums up and demonstrates the school's teamwork: William Berczy—the school where teachers want to teach, students want to learn and parents want to be involved.

The EQAO Assessment Process: Grades 3 and 6

In order to fulfill its mandate, EQAO conducts several province-wide assessments, among them the Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics.

Both assessments are conducted annually and involve all Grade 3 and Grade 6 students in publicly funded schools in Ontario. The assessment results provide individual, school and school board data on student achievement at two critical stages of elementary education.

EQAO posts board and school results on its Web site for public access. As well, EQAO publishes an annual *Provincial Report* for education stakeholders and the general public. Data from the assessments provide valuable information to support improvement planning at the school and school board levels.

Design and Development

EQAO education officers consult with educators across the province on all aspects of the Grade 3 and Grade 6 assessments, including design, development, content review, field testing, administration, marking and reporting.

The Grade 3 and Grade 6 assessments are developed in keeping with the *Principles for Fair Student Assessment Practices for Education in Canada* (1993), a document created by representatives of national education institutions and associations and widely endorsed by Canada's education community. Parallel versions of the Grade 3 and Grade 6 assessments are developed for English- and French-language schools. The versions have the same number and kinds of reading, writing and mathematics tasks but reflect variations in the curricula for the two languages.

The Grade 3 and Grade 6 assessments measure how well students have met the provincial expectations outlined in *The Ontario Curriculum, Grades 1–8*. The assessments contain performance-based activities requiring written responses and multiple-choice questions through which students can demonstrate what they know and what they can do.

Students are assessed in three key areas:

Reading: using a variety of reading strategies and conventions, understanding concepts, making inferences and connecting ideas.

Writing: using writing strategies and language conventions, understanding assigned tasks, organizing ideas and communicating with the reader.

Mathematics: demonstrating knowledge and skills across the five strands of mathematics: number sense and numeration; measurement; geometry and spatial sense; patterning and algebra; and data management and probability.

Procedures to Ensure Consistency and Validity

EQAO has specific procedures in place to ensure that administration is consistent and fair for all students. Students work independently in a quiet environment, supervised by teachers. Teachers are given a script that must be followed to ensure that a common message is given to all students throughout the province.

Students with special needs are provided with accommodations according to EQAO guidelines. ESL and ELD students are provided with special provisions, which are described in EQAO's *Administration Guide: Grade 3 and Grade 6 Assessments of Reading, Writing and Mathematics*.

Each school is sent an English- or French-language CD-ROM for use in training teachers to administer the assessments. Additional resources, such as guides and instructions, are provided to ensure that the same administrative and accommodation procedures are followed for all students across the province. Quality assurance procedures help ensure that EQAO's assessments produce valid and reliable data.

Administration and Scoring

The Grades 3 and 6 assessments are conducted annually in May and June. In both grades, students work independently to solve problems, write responses and answer multiple-choice questions. All teachers responsible for administering the assessments are instructed to follow the Teacher's Plans provided.

The Grade 3 and Grade 6 assessments are marked by educators representing all elementary grades. Marking provides teachers with valuable professional development in assessing student achievement.

Levels of Achievement

EQAO uses a four-level scale to report on student achievement in reading, writing and mathematics. This scale is based on *The Ontario Curriculum, Grades 1–8* and sets Level 3 as the provincial standard. Levels 1 and 2 indicate achievement below the provincial standard, while Level 4 indicates achievement beyond the expected standard.

The student's overall result for each subject is derived by combining the results from the performance-based activities with those from the multiple-choice questions.

Enhancements to the Assessment Program

In November 2002, EQAO initiated a comprehensive review to ensure that all aspects of the provincial assessment program meet international standards of best practice and that user needs for accountability and improvement planning are met. Following the review, several enhancements were made. For instance, the total amount of testing time was reduced by approximately half, to six hours: two hours for each subject. For more information about the review and enhancements to Ontario's provincial assessment program, you may refer to the brochure Ensuring Quality Assessments: The Move Forward on EQAO's Web site, www.eqao.com.

Grade 9 Assessment of Mathematics

Trends: Grade 9 Academic Mathematics

Contextual Information*

	2002–2003	2003–2004	2004–2005
Number of Students	# = 100 717	# = 102 923	# = 104 100
Students participating in the assessment	97%	99%	99%
Female	51%	51%	50%
Male	48%	48%	48%
ESL/ELD learners†	3%	2%	2%
Students with special needs (excluding gifted)†	4%	3%	3%
Speak only or mostly a language other than English at home	10%	9%	8%
Speak another language as often as English at home	11%	13%	13%
Attended three or more elementary schools from kindergarten to Grade 8	29%	35%	35%

* Contextual information is derived from the Student Information Form completed by the school and the Student Questionnaire completed by the students. Some data may be missing, because they were not reported by the school.

† See the Explanation of Terms.

Observations

- Enrolment in Grade 9 academic mathematics has increased each year.
- While the characteristics of the population have remained similar, there was a slight decrease in 2004–2005 in the percentage of students reporting that they spoke only or mostly a language other than English at home.
- In 2004–2005, there was a slight decrease in the percentage of Grade 9 academic mathematics students who were female.

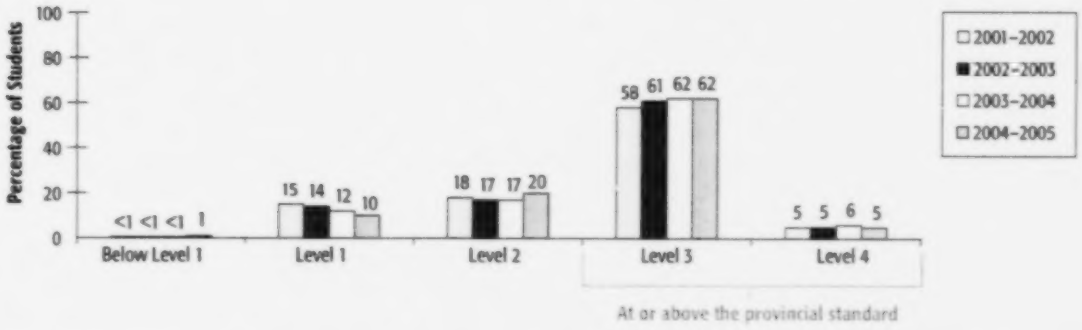
Trends by Gender

		2001–2002		2002–2003		2003–2004		2004–2005	
		Female # = 49 772	Male # = 48 181	Female # = 51 352	Male # = 48 750	Female # = 52 104	Male # = 49 916	Female # = 52 030	Male # = 50 129
Percentage of Students	Level 4	5%	6%	5%	5%	6%	6%	5%	7%
	Level 3	58%	59%	61%	61%	62%	62%	62%	63%
	Level 2	18%	16%	17%	17%	17%	17%	20%	18%
	Level 1	15%	13%	14%	14%	12%	12%	10%	10%
	Below Level 1	<1%	1%	<1%	<1%	<1%	<1%	1%	1%
	NEIS	3%	3%	<1%	<1%	1%	1%	N/A*	N/A*
	No Data	1%	1%	2%	2%	1%	1%	1%	1%
	Exempt	<1%	1%	<1%	<1%	<1%	<1%	<1%	<1%
	At or Above the Provincial Standard†	63%	65%	66%	66%	68%	68%	67%	69%

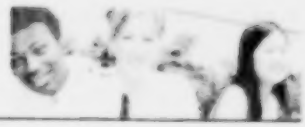
* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.

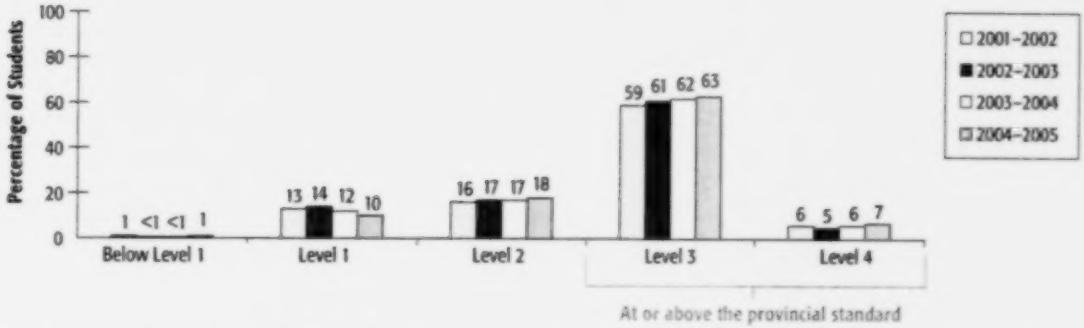
Female



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.



Male



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Observations

- The percentage of male students taking Grade 9 academic mathematics who performed at or above Level 3, the provincial standard, increased by 1% to 69% in 2004–2005 from 68% in 2003–2004.
- The percentage of female students who performed at or above the provincial standard decreased by 1% to 67% in 2004–2005 from 68% in 2003–2004.
- A small gap of 2% in favour of males, which had not been in evidence since 2001–2002, reappeared in 2004–2005.
- The percentage of both female and male students who achieved Level 2 increased while the percentage at Level 1 decreased in 2004–2005 compared to 2003–2004.

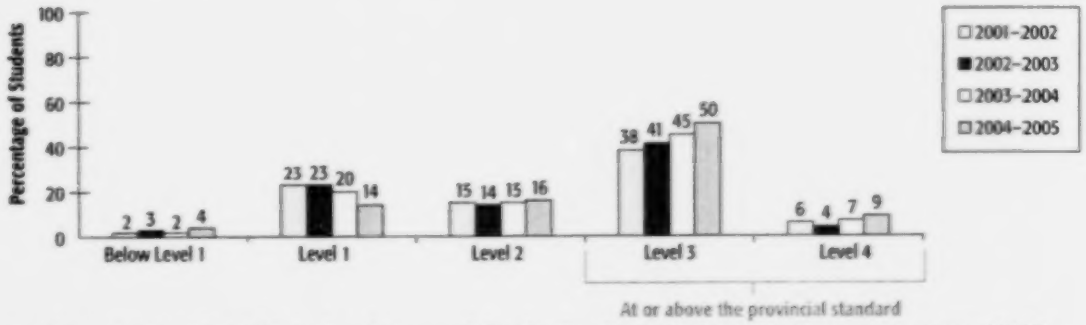
ESL/ELD Learners*

		2001–2002 # = 2693	2002–2003 # = 3045	2003–2004 # = 2471	2004–2005 # = 2308
Percentage of Students	Level 4	6%	4%	7%	9%
	Level 3	38%	41%	45%	50%
	Level 2	15%	14%	15%	16%
	Level 1	23%	23%	20%	14%
	Below Level 1	2%	3%	2%	4%
	NEIS	3%	1%	1%	N/A†
	No Data	1%	2%	1%	1%
	Exempt	12%	11%	8%	6%
	At or Above the Provincial Standard‡	44%	45%	52%	58%

* See the Explanation of Terms.

† The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

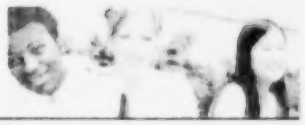
‡ These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- The percentage of ESL/ELD learners taking academic mathematics who performed at or above Level 3, the provincial standard, increased by 6% to 58% in 2004–2005 from 52% in 2003–2004.
- Over the past three years, the ESL/ELD population has shown consistent improvement in the percentage of students performing at or above the provincial standard.
- In 2004–2005, the percentage of the ESL/ELD population who performed at Level 1 dropped by 6%, continuing a trend that began in 2003–2004.
- The percentage of the ESL/ELD population who were exempted from participation decreased by 2% to 6% in 2004–2005 from 8% in 2003–2004. Between 2001–2002 and 2004–2005, the percentage decreased from 12% to 6%.



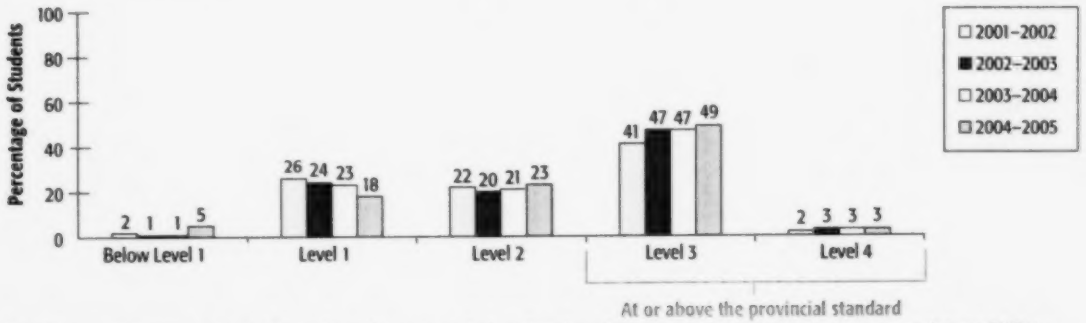
Students with Special Needs (Excluding Gifted)*

		2001–2002 # = 2386	2002–2003 # = 4181	2003–2004 # = 3563	2004–2005 # = 3274
Percentage of Students	Level 4	2%	3%	3%	3%
	Level 3	41%	47%	47%	49%
	Level 2	22%	20%	21%	23%
	Level 1	26%	24%	23%	18%
	Below Level 1	2%	1%	1%	5%
	NEIS	4%	1%	2%	N/A†
	No Data	2%	2%	2%	2%
	Exempt	2%	2%	1%	1%
	At or Above the Provincial Standard‡	43%	50%	50%	52%

* See the Explantion of Terms.

† The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

‡ These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- The percentage of students with special needs (excluding gifted) taking Grade 9 academic mathematics who performed at or above Level 3, the provincial standard, increased by 2% to 52% in 2004–2005 from 50% in 2003–2004.
- In 2004–2005, the percentage of students who performed at Level 1 decreased by 5%, and the percentage of students who performed at Level 2 increased by 2% compared to 2003–2004.
- The percentage of students who performed Below Level 1 increased by 4% compared to 2003–2004. This may in part be a result of the elimination of the NEIS designation.
- Over the past three years, the percentage of students who performed at or above the provincial standard has increased from 43% to 52%.

Trends: Grade 9 Applied Mathematics

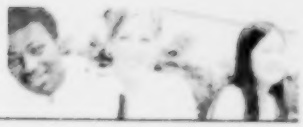
Contextual Information*

	2002–2003	2003–2004	2004–2005
Number of Students	# = 48 426	# = 50 430	# = 51 155
Students participating in the assessment	90%	92%	93%
Female	44%	44%	44%
Male	55%	54%	54%
ESL/ELD learners†	5%	4%	4%
Students with special needs (excluding gifted)†	25%	24%	23%
Speak only or mostly a language other than English at home	7%	6%	6%
Speak another language as often as English at home	9%	11%	10%
Attended three or more elementary schools from kindergarten to Grade 8	34%	41%	40%

* Contextual information is derived from the Student Information Form completed by the school and the Student Questionnaire completed by the students. Some data may be missing, because they were not reported by the school.
† See the Explanation of Terms.

Observations

- The characteristics of the student population taking Grade 9 applied mathematics have remained relatively stable over time.
- Over the past two years, there have been
  - small increases in the enrolment of students in applied mathematics,
  - slight increases in the percentage of students participating in the assessment,
  - slight decreases in the percentage of students taking applied mathematics who are identified as having special needs and
  - increases in the percentage of students who report having attended more than three elementary schools, compared to 2002–2003, an indication of increased student mobility in this population.



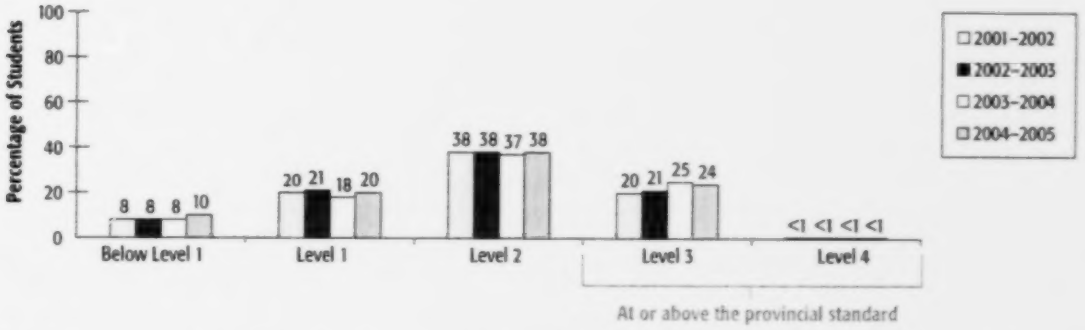
Trends by Gender

		2001–2002		2002–2003		2003–2004		2004–2005	
		Female # = 20 786	Male # = 25 615	Female # = 21 387	Male # = 26 625	Female # = 22 292	Male # = 27 223	Female # = 22 371	Male # = 27 413
Percentage of Students	Level 4	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
	Level 3	20%	21%	21%	21%	25%	26%	24%	28%
	Level 2	38%	36%	38%	36%	37%	37%	38%	36%
	Level 1	20%	19%	21%	19%	18%	16%	20%	18%
	Below Level 1	8%	8%	8%	9%	8%	8%	10%	10%
	NEIS	5%	7%	3%	5%	5%	6%	N/A*	N/A*
	No Data	6%	6%	7%	7%	6%	6%	6%	6%
	Exempt	2%	3%	2%	2%	1%	1%	1%	1%
	At or Above the Provincial Standard†	20%	21%	21%	21%	25%	26%	25%	28%

* The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

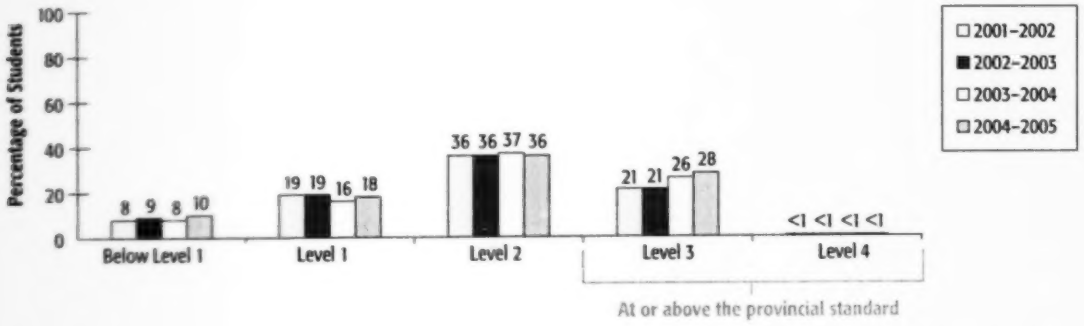
† These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.

Female



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

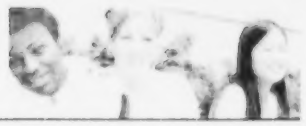
Male



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- The percentage of male students taking Grade 9 applied mathematics who performed at or above Level 3, the provincial standard, increased by 2% in 2004–2005.
- The percentage of female students who performed at or above the provincial standard was the same in 2004–2005 and 2003–2004.
- The gender gap, which favours males, increased to 3% in 2004–2005 from 1% in 2003–2004. This is the largest gender gap in the applied mathematics program since the Grade 9 Assessment of Mathematics began.



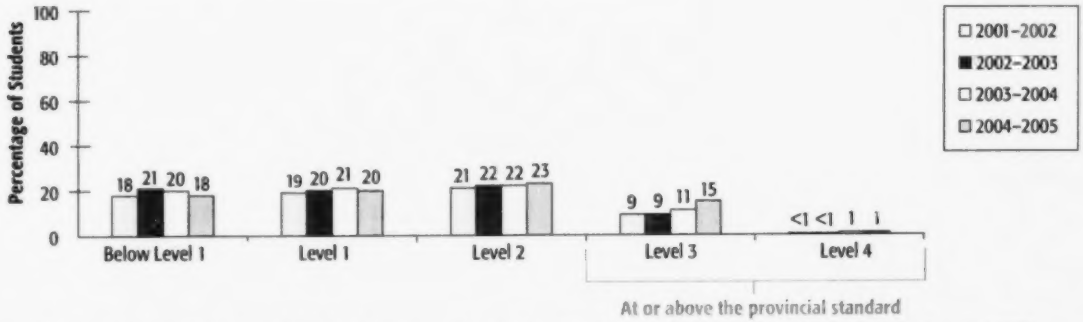
ESL/ELD Learners*

		2001–2002 # = 2094	2002–2003 # = 2236	2003–2004 # = 2013	2004–2005 # = 1827
Percentage of Students	Level 4	<1%	<1%	1%	1%
	Level 3	9%	9%	11%	15%
	Level 2	21%	22%	22%	23%
	Level 1	19%	20%	21%	20%
	Below Level 1	18%	21%	20%	18%
	NEIS	6%	6%	5%	N/A†
	No Data	3%	6%	5%	4%
	Exempt	23%	15%	14%	19%
	At or Above the Provincial Standard‡	9%	9%	12%	16%

* See the Explanation of Terms.

† The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

‡ These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- The percentage of ESL/ELD learners taking Grade 9 applied mathematics who performed at or above Level 3, the provincial standard, increased by 4% to 16% in 2004–2005 from 12% in 2003–2004.
- Over the past two years, this population has shown improvement in the percentage of students performing at or above the provincial standard.
- The percentage of the population who were exempted from participation increased by 5% to 19% in 2004–2005 from 14% in 2003–2004. This reverses the previous two-year trend of decreases in the percentage of students exempted. Over the last four years, the percentage of students exempted has varied from a high of 23% in 2001–2002 to a low of 14% in 2003–2004.

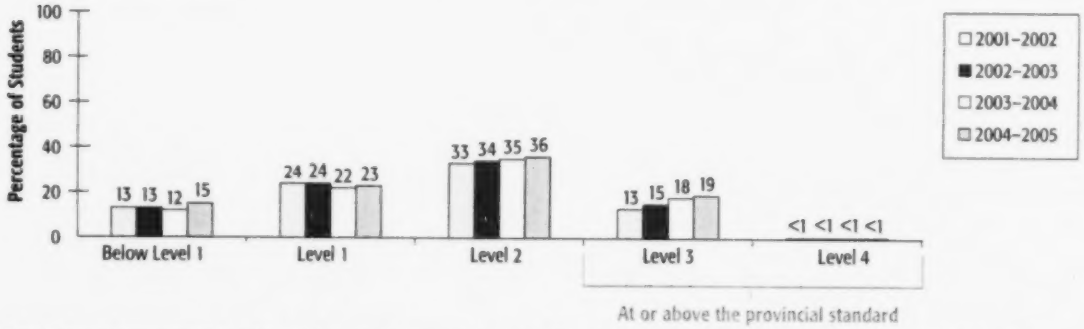
Students with Special Needs (Excluding Gifted)*

		2001–2002 # = 8869	2002–2003 # = 11 959	2003–2004 # = 12 269	2004–2005 # = 12 020
Percentage of Students	Level 4	<1%	<1%	<1%	<1%
	Level 3	13%	15%	18%	19%
	Level 2	33%	34%	35%	36%
	Level 1	24%	24%	22%	23%
	Below Level 1	13%	13%	12%	15%
	NEIS	8%	4%	5%	N/A†
	No Data	5%	6%	5%	5%
	Exempt	5%	4%	2%	2%
	At or Above the Provincial Standard‡	13%	15%	19%	19%

* See the Explanation of Terms.

† The NEIS (Not Enough Information to Score) category was eliminated in 2004–2005. As students are now assigned a level based on the work they completed, comparisons with previous years should be made with caution.

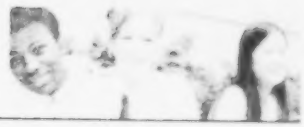
‡ These percentages are based on the actual number of students and cannot be calculated simply by adding the (rounded) percentages of students at Levels 3 and 4.



Note: Because percentages in tables and graphs are rounded, and as these bar graphs do not show the exempt, no data and NEIS categories, percentages will not add up to 100.

Observations

- In 2004–2005, there was no change in the percentage of Grade 9 students with special needs (excluding gifted) taking applied mathematics who performed at or above Level 3, the provincial standard, compared to 2003–2004 (19%).
- Over the past three years, the percentage of this population performing at or above the provincial standard has increased from 13% to 19%.
- The percentage of the population who performed Below Level 1 increased by 3% compared to 2003–2004. This may in part be a result of the elimination of the NEIS designation.



Summary of Findings: Grade 9

Grade 9 Assessment of Mathematics: Academic

- Just over two-thirds (68%) of Grade 9 students taking academic mathematics performed at or above Level 3, the provincial standard.
- 69% of male students demonstrated achievement at or above the provincial standard compared to 67% of female students, a gap of 2%. In the previous two years, there was no gap in performance between the genders.
- 58% of ESL/ELD learners performed at or above the provincial standard, an increase of 6% compared to 2003–2004.
- 52% of students with special needs (excluding gifted) performed at or above the provincial standard, an increase of 2% compared to 2003–2004.

Grade 9 Assessment of Mathematics: Applied

- 27% of Grade 9 students taking applied mathematics demonstrated achievement at or above Level 3, the provincial standard, continuing the pattern of small but steady increases over the past four years.
- There was a gap of 3% favouring males in the percentage of students performing at or above the provincial standard; this contrasts with previous years, in which there was at most a 1% gap between the genders.
- 16% of ESL/ELD learners demonstrated achievement at or above the provincial standard, an increase of 4% from the previous year.
- 19% of students with specials needs (excluding gifted) demonstrated achievement at or above the provincial standard; this is consistent with this group's performance in 2003–2004.

Strategies for Educators: Grade 9

Addressing the Achievement Data

This part of the report provides practical and helpful suggestions for increasing student success on the Grade 9 Assessment of Mathematics. The suggestions are based on the Grade 9 EQAO assessment data and feedback from scorers.

EQAO suggests that, because

- *many students interpret questions incorrectly,* teachers help students read and identify the requirements of questions, including the context and the important elements of classroom assignments.
- *some students do not understand the meaning of key words and phrases in questions,* teachers use the words and phrases used on EQAO mathematics assessments, such as "determine," "show your work" and "justify your answer," in questions and help students understand how to write the kind of answer each requires.
- *some students confuse related mathematical ideas (e.g., triangle/rectangle, square/cube, area/volume, diameter/radius),* teachers help students develop word lists and glossaries of mathematical terms with diagrams, such as those on the EQAO Formula Sheet, in order to understand and use the ideas correctly when answering questions.
- *many students do not develop their answers enough to demonstrate a "considerable" or "thorough" understanding,* teachers encourage and provide opportunities for students to
  – read carefully and understand the requirements of questions,
  – use words from the questions in their solutions,
  – develop their answers and justifications in greater detail,
  – understand the characteristics and see examples of responses at different levels on a rubric and
  – review their answers for correctness, reasonableness and completeness.
- *many students make careless errors such as substituting the wrong numbers in a formula, using an inaccurate value for π and not paying attention to units (e.g. millimetres vs. centimetres),* teachers stress the importance of careful and precise thinking and calculations in mathematical applications and problem solving.
- *many students choose the wrong formula when solving problems, even though there is a formula sheet provided,* teachers spend more time relating formulas to key words in questions that signal their use or application, review the EQAO Formula Sheet posted on the EQAO Web site at regular intervals and provide opportunities for students to refer to and use the Formula Sheet in the classroom and to use concrete materials to investigate and develop an understanding of measurement concepts related to formulas.

EQAO suggests that, because

- *many students, when answering open-response questions in mathematics, have difficulty explaining their thinking in mathematical terms,* teachers model and provide opportunities for students to practise orally (e.g., small group discussions) and in writing (e.g., keeping a math journal) the use of mathematical language to explain their thinking or to justify their choice of mathematical process and application to answer a question or solve a problem.
- *some students are unfamiliar with strategies related to responding to questions, such as eliminating obviously incorrect answers or unimportant information,* boards, schools and teachers prepare materials to help students develop a variety of strategies for answering these questions.
- *most students continue to struggle with algebraic skills (e.g., applied and academic: Spring, question 2; academic: Winter, question 9),* teachers provide students with access to and encourage the use of manipulatives, such as algebra tiles, during the school year in order to help them visualize algebraic concepts.
- *many students have difficulty with questions requiring more than two steps of reasoning (e.g., applied: Spring, questions 4, 5, 18, 24; academic: Spring, questions 4 and 22),* teachers ensure that students get sufficient opportunities to practise, in groups and independently, mathematical questions and solutions requiring three or more steps of reasoning.
- *some students experience difficulty working with scales on graphs and in deciding which points to use to determine an accurate slope or rate of change for a given line,* teachers give students more experience in the classroom graphing using varied scales and determining slopes and rates of change of various lines.
- *some students respond with a simple solution or a guess to questions of some complexity (e.g., applied: Winter and Spring, question 22; academic: Winter, question 29),* teachers provide students with strategies for reading and understanding the requirements of a question and solving problems (e.g., look for clues in the words or the context to help them eliminate obviously incorrect answers) and for using technology to complete
complex operations.
- *some students taking Grade 9 academic mathematics provide incorrect answers because they miss significant details in the question (e.g., academic: Spring, question 12; applied: Winter, question 5),* teachers coach students to consider the level of detail provided in the question and the impact these details have on their answer to the question.

School Success Stories: Grade 9

This year, EQAO highlights six high schools whose effective strategies for creating successful learning environments reflect the initiatives of many publicly funded schools across the province.

The profiles of these schools confirm that, above all, student achievement is fueled by the dedication, energy and collaboration of highly professional staff. One principal speaks for all when commenting, "Our success is the result of a team effort."

Some of the recurring themes that schools identify as factors in addressing the numeracy needs of students include a school-wide focus on numeracy; using EQAO data and resources to guide instruction; connecting mathematical concepts and real-life situations; using technology and manipulatives for enhanced conceptual understanding and problem-solving; in-school learning communities; board support for professional development and programs; networking with feeder schools; remedial help for at-risk learners; and the contribution of the entire school community.

EQAO applauds these schools and all Ontario's educators, who are working diligently to enhance student learning.

Centennial Secondary School, Belleville

Hastings and Prince Edward District School Board

While Centennial Secondary School does have an urban base, the majority of the school's 1090 students are bused in from rural areas. This school operates the visual and performing arts program for the region.

In 2004–2005, 88% of students in the Grade 9 academic mathematics program and 59% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

Our math department functions as a high-energy, collegial and collaborative unit that is extremely committed to professional development. Every department meeting begins with an exercise in problem-solving to identify best practices, and teachers continually challenge themselves to enhance their instructional methods. Neither I nor the vice-principal can pass by a math class without being invited in by a teacher to observe student activities.

Mandy Savery-Whiteway, Principal

Highlighting mathematics in action is one of the key ways Centennial Secondary School successfully facilitates student comprehension and enthusiasm. Teachers put special emphasis on connecting mathematical concepts to real-life situations and are working hard to integrate the use of technology and manipulatives to improve conceptual understanding and problem solving. All initiatives flow out of a dedicated focus on sound instructional practice, which involves ongoing reflective practice and support. For example, immediately following the EQAO assessments, teachers review responses and debrief to determine strengths and weaknesses and revise lesson plans accordingly. As well, importance is placed on cross-department dialogue, as all subject teachers are deemed instrumental in advancing literacy and numeracy skills.

Erindale Secondary School, Mississauga
Peel District School Board

Erindale Secondary School is a multicultural school with 1510 students. In 2004–2005, 34% of its students in Grade 9 applied mathematics were identified as having special needs.

In 2004–2005, 77% of students in the Grade 9 academic mathematics program and 36% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

Our success is the result of a team effort on the part of our teachers, spearheaded by our head of math. This collaboration has resulted in the implementation of various forward-thinking initiatives. One of our strategies has been to incorporate EQAO sample questions into classroom assessments. We view the EQAO assessment as a measurement tool to guide us in the refinement of our program. All of our teachers are positive about the process, and as a result the students also have a positive attitude toward EQAO.

Stuart Shaw, Principal

Erindale Secondary School has piloted several innovative approaches to enhance learning. The math department categorized EQAO sample questions in order to integrate them into unit assessments throughout the semester. In this way, students became familiar with EQAO, which served to reduce anxiety related to writing the assessment dramatically. As well, the school set up a Numeracy Committee, which identified numeracy needs for all Grade 9 subjects. The committee created a Critical Numeracy Skill Binder composed of 300 fun activity sheets, which was distributed to Grade 8 teachers at feeder schools for use at their discretion. Some of the binder's puzzles and games will also be used in the school's upcoming Family Math Nights.

Fort Frances High School, Fort Frances
Rainy River District School Board

Fort Frances High School has approximately 950 students, about half of whom are bused in from outlying areas. First Nations students from seven area bands account for about 20% of the school population. A significant percentage of students receive special-needs support.

In 2004–2005, 68% of students in the Grade 9 academic mathematics program and 32% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

We have taken many system initiatives and successfully implemented them in our school. We have launched strategies to assist elementary and Grade 8 teachers to prepare students for Grade 9 challenges. We are committed to bridging gaps. We have a strong math department that is enhanced by increased professional development and ongoing daily dialogue between teachers in both academic and applied math on curriculum and student needs.

Gordon McCabe, Principal

At Fort Frances High School, a critical component of all mathematics instruction is ensuring student understanding of key words and phrases. In keeping with the emphasis on true comprehension as the starting point for success, both the academic and applied programs strive to ensure students grasp not only the "how" and "what" but also the "why" behind the concepts. Both programs use technology and a variety of different inquiry projects as learning and assessment tools, with the applied program maximizing opportunities for students to do investigations individually and with partners for group discussions. Teaching of applied mathematics in particular emphasizes knowledge and understanding of concrete notions before tackling abstracts. Fort Frances believes in the value of partnering with teachers of earlier grades to ready students for Grade 9. Grade 8 teachers work with Fort Frances math staff to assist students select the program most appropriate for their needs. To prepare students for the EQAO assessment, all Grade 9 teachers integrate EQAO-like questions into regular assessments. Student interest in the assessment is heightened by the fact that teachers at this school mark a part of the test, which counts for 5% of their grade.

John Paul II Catholic Secondary School
London District Catholic School Board

John Paul II Secondary School serves a highly multicultural school population of approximately 1250 students. Many of the students are recent immigrants to Canada.

In 2004–2005, 76% of students in the Grade 9 academic mathematics program and 46% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

One of our best initiatives has been to open the dialogue between elementary teachers of math and the Grade 9 math teachers at John Paul II. We believe that a consistent approach to the delivery of mathematics is a key factor for success. By having Grade 9 math teachers focus on the same page of the curriculum at the beginning of the school year, we have been able to identify students who are struggling in their program and change them to an appropriate level before Thanksgiving to increase their chance of succeeding.

James Martin, Principal

John Paul II Secondary School's emphasis on consistency and a math-positive culture has helped foster student achievement. Students recognize the value of hard work, as it leads to receiving tremendous assistance to guide their success. The school offers a Continuing Education program that provides after-school help for at-risk students in math as well as literacy. Teachers work closely together to share tasks, tests and lesson plans, so consistency is maintained. In-school learning communities that share best practices have resulted in a mix of testing and teaching approaches designed to connect with different learning needs. A blend of TIPS strategies, manipulatives, technology and even rote teaching has been found to enhance student achievement. At this school, classroom discipline is viewed as a critical strategy to promote learning, and one that is actively supported by the administration. Teachers take steps to communicate with parents as soon as concerns arise. As well, there is great attention to scheduling to allow manageable class sizes, particularly in the applied program. Every effort is made to help students and their parents overcome negative perceptions and fears of math. EQAO testing happens at the last possible date to allow for maximum curriculum teaching, and students are given practice questions throughout the semester to decrease stress.

St. Benedict Catholic Secondary School, Sudbury
Sudbury Catholic District School Board

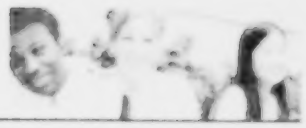
St. Benedict Catholic Secondary School is located in the south end of Sudbury and serves 650 students, of whom approximately 125 have Individual Education Plans. The school offers a wide variety of programming, including applied, locally developed and not-for-credit courses focusing on life skills.

In 2004–2005, 82% of students in the Grade 9 academic mathematics program and 30% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

The key to building student achievement at the secondary level is to promote a mathematics culture.

Guy Mathieu, Principal

St. Benedict Catholic Secondary School attributes its success to the development of a school-wide approach. The process begins with an evaluation of EQAO and other school data to identify successful practices and pinpoint areas for further growth. Of particular importance is an exploration of the learning needs of specific school populations such as girls and boys, academic and applied students, and exceptional students. Supported by professional development and release time, teachers develop lesson plans that explicitly incorporate expectations as part of curriculum delivery.



St. Peter's Catholic Secondary School, Peterborough

Peterborough Victoria Northumberland and Clarington Catholic District School Board

St. Peter's Catholic Secondary School serves a mixed rural and urban student population of 1290. Students come from a variety of socio-economic backgrounds, with some 230 students identified as exceptional.

In 2004–2005, 88% of students in the Grade 9 academic mathematics program and 48% of students in the Grade 9 applied mathematics program met or surpassed the provincial standard.

Improving student achievement requires a whole-school commitment. I think one of the keys to our improvement has been our ability to approach every aspect of the process—from data analysis through classroom practice and assessment—in a unified way. When you find an approach that works, it makes sense to apply it consistently with every student, and in every classroom.

Michael J. Nolan, Principal

St. Peter's Catholic Secondary school has used EQAO data and other measures to develop purposeful and highly targeted lesson plans that are applied school-wide to improve teaching and learning. This approach has resulted, for example, in the development of daily lesson plans for all teachers of Grade 9 applied and academic mathematics. All teachers share in effective practice, while students benefit from consistency of approach regardless of their teacher or classroom assignment. Likewise, colleagues in feeder schools have been encouraged to develop similar consistent teaching approaches to ensure a smooth transition from elementary to secondary education. This key success strategy is further supported by substantial professional development for teachers, daily use of EQAO items as instructional tools, strong communication between the school and parents and a positive school climate in which success is celebrated.

The EQAO Assessment Process: Grade 9

This assessment is conducted twice annually and involves all Grade 9 students taking applied or academic mathematics courses in publicly funded schools in Ontario. The assessment results provide individual, school and school board data on student achievement at a critical stage in a student's education.

EQAO posts board and school results on its Web site for public access. As well, EQAO publishes an annual *Provincial Report* for education stakeholders and the general public. Data from the assessments provide valuable information to support improvement planning at the school and school board levels.

Design and Development

EQAO education officers consult with mathematics educators across the province on all aspects of the Grade 9 Assessment of Mathematics, including development, content review, field testing, administration, scoring and reporting.

The Grade 9 Assessment of Mathematics is developed in keeping with the *Principles of Fair Student Assessment Practices for Education in Canada* (1993), a document created by representatives of national education institutions and associations and widely endorsed by Canada's education community.

In Grade 9, students choose to take either applied or academic courses. EQAO develops separate versions of the Grade 9 Assessment of Mathematics for students in applied and academic courses.

Parallel versions of the assessment are developed for English- and French-language schools. The versions have the same number and kinds of questions but reflect variations in the curricula for the two languages.

The Grade 9 Assessment of Mathematics measures how well students have met the provincial expectations as outlined in *The Ontario Curriculum, Grades 9 and 10: Mathematics*. The assessment contains performance-based activities requiring written responses and multiple-choice questions through which students can demonstrate what they know and what they can do.

Students are assessed on how well they demonstrate knowledge and skills in mathematics. Questions include content from the four strands: number sense and algebra; relationships; analytic geometry; and measurement and geometry.

Procedures to Ensure Consistency and Validity

EQAO has specific procedures in place to ensure that the administration of the assessment is consistent and fair for all students. Students work independently in a quiet environment, supervised by teachers. Teachers are given a script that must be followed to ensure that a common message is given to all students throughout the province.

Students with special needs are provided with accommodations according to EQAO guidelines. ESL and ELD learners are provided with special provisions described in EQAO's *Guide for Administering the Grade 9 Assessment of Mathematics*. All teachers responsible for administering the assessment receive detailed guidelines and follow the Teacher's Scripts.

Each school is sent an English- or French-language CD-ROM for use in training teachers to administer the assessment. The guide provides instructions and scripts to ensure that the same administrative and accommodation procedures are followed for all students across the province. Quality assurance procedures help ensure that EQAO's assessments produce valid and reliable data.

Administration and Scoring

The Grade 9 Assessment of Mathematics is conducted twice annually—in January for students in first-semester courses and in May/June for students in second-semester and full-year courses.

Students work independently to solve problems, write their responses and answer multiple-choice questions. All teachers responsible for administering the assessment are instructed to follow the Teacher's Scripts.

The Grade 9 Assessment of Mathematics is scored by teachers trained in scoring. Scoring provides teachers with valuable professional development in the area of assessing student achievement.

Levels of Achievement

EQAO uses a four-level scale to report on student achievement in mathematics. This scale is based on *The Ontario Curriculum, Grades 9 and 10: Mathematics* and sets Level 3 as the provincial standard. Levels 1 and 2 indicate achievement below the provincial standard, while Level 4 indicates achievement beyond the standard.

The student's overall result for mathematics is derived by combining the results from the performance activities with those from the multiple-choice questions.

Enhancements to the Assessment Process

In November 2002, EQAO initiated a comprehensive review to ensure that all aspects of the provincial assessment program meet international standards of best practice and that user-needs for accountability and improvement planning are met. Following the review, several enhancements were made. For instance, the total amount of testing time was reduced by approximately half, to two hours. For more information about the review and enhancements to Ontario's provincial assessment program, refer to the brochure Ensuring Quality Assessments: The Move Forward on the EQAO Web site, www.eqao.com.

Suggested Resources: Grades 3, 6 and 9

Think Literacy: Mathematics Approaches, Grades 7–12 (2004), available on the OAME Web site, www.oame.on.ca.

The following resources are all available on the Ministry of Education Web site, www.edu.gov.on.ca:

Early Math Strategy: The Report of the Expert Panel on Early Math in Ontario (2003).

Early Reading Strategy: The Report of the Expert Panel on Early Reading in Ontario (2003).

Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6 (2005).

Literacy for Learning: The Report of the Expert Panel on Literacy in Grades 4 to 6 in Ontario (2004).

Me Read? No Way! A Practical Guide to Improving Boys' Literacy Skills (2004).

The Ontario Curriculum, Grades 1–8: Language (1997).

The Ontario Curriculum, Grades 1–8: Mathematics (revised 2005).

Teaching and Learning Mathematics: The Report of the Expert Panel on Mathematics in Grades 4 to 6 in Ontario (2004).

Explanation of Terms

All Students	Results are reported for all students in the grade (Grades 3 and 6) or program (Grade 9).
Participating Students	Results are reported only for those students who took part in the assessment (excludes "no data" and "exempt" categories).
Provincial Standard	The Ministry of Education, in *The Ontario Curriculum*, has set Level 3 as the provincial standard. Level 3 identifies a high level of achievement of provincial expectations. The levels of achievement are aligned with the four-level scale developed by the Ministry of Education and used on the Provincial Report Card.
Grade 9 Level 4 (80–100%)	The student has demonstrated a very high to outstanding level of achievement. Achievement is *above* the provincial standard.
Grade 9 Level 3 (70–79%)	**The student has demonstrated a high level of achievement. Achievement is at the provincial standard.**
Grade 9 Level 2 (60–69%)	The student has demonstrated some of the required knowledge and skills. Achievement is *below, but approaching*, the provincial standard.
Grade 9 Level 1 (50–59%)	The student has demonstrated a passable level of achievement. Achievement is *below* the provincial standard.
Grade 9 Below Level 1	The student has not demonstrated sufficient achievement of curriculum expectations (below 50%).
Grades 3 and 6 Level 4	The student has demonstrated the required knowledge and skills. Achievement exceeds the provincial standard.
Grades 3 and 6 Level 3	**The student has demonstrated most of the required knowledge and skills. Achievement meets the provincial standard.**
Grades 3 and 6 Level 2	The student has demonstrated some of the required knowledge and skills. Achievement approaches the provincial standard.
Grades 3 and 6 Level 1	The student has demonstrated some of the required knowledge and skills in limited ways. Achievement falls much below the provincial standard.
Grades 3 and 6 NE1	"Not Enough Evidence for Level 1" is used when students provided enough information to score but did not demonstrate enough evidence of knowledge and understanding to be assigned Level 1.
NEIS	"Not Enough Information to Score" is a category that was eliminated in 2004–2005. Students are now assigned a level based on the work they completed. Unanswered questions are treated as incorrect in the calculation of the students' results.
No Data	This designates non-exempt students who did not complete any part of the assessment due to absence or for medical or other reasons.
Exempt	This designates students who were formally exempted by the school from participating in the assessment or, in the case of Grades 3 and 6, one or more components of it.

ESL/ELD	According to the ministry definition, these are students who have been identified as English as a second language or English literacy development learners. As this group was formerly defined as "students enrolled in an ESL/ELD program," the percentages of students in this group from 2003–2004 on may not be comparable with those of previous years.
Students with Special Needs	Students with special needs are students formally identified by an Identification, Placement and Review Committee (IPRC), and/or students who have an Individual Education Plan (IEP). Students whose sole identified exceptionality is giftedness are not included. Beginning in 2004, an IEP (whether the student has been formally identified through an IPRC or not) was instituted as mandatory for the special needs designation. In previous years, this designation included students who had not been formally indentified but whom schools reported as receiving special education remedial support. The data for the previous three years have been recalculated using this year's definition of special needs.

Working together

to improve student learning

The Education Quality and Accountability Office (EQAO) is dedicated to working with the education community and to enhancing the quality and accountability of the education system in Ontario. This is achieved through student assessments that produce objective, reliable and relevant information, and through the timely public release of this information along with recommendations for system improvement.

Values

- EQAO values student learning above all other interests.
- EQAO values information that has the potential to bring about constructive change and improvement.
- EQAO values the dedication and expertise of Ontario's educators and works in partnership with them in all of its activities.
- EQAO values the delivery of its programs and services with equivalent quality in both English and French.

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